



## **INFORMATION ITEM**

### Delta Social Science Integration Update

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**Summary:** The social sciences can help in understanding how people view and interact with the Delta, how the Delta impacts their health and well-being, and how their behaviors influence environmental issues, all of which contribute insight into protecting and restoring the Delta through efficient and equitable management and policy approaches. However, there has been significantly less scientific attention devoted to studying and understanding the people, communities, and social dimensions of the Delta, as compared to the body of science developed to understand the non-human species, habitats, water, and ecology of the Delta. The Delta Independent Science Board, the 2016 Science Enterprise Workshop, and the 2017-2021 Science Action Agenda noted this gap and recommended the Delta Science Program convene a Social Science Task Force to develop a strategy for strengthening and integrating social sciences into the science, management, and policy landscape of the Delta. In spring 2020, “A Social Science Strategy for the Sacramento-San Joaquin Delta” was released, summarizing findings on the state of social science in the Delta and providing the Council with recommendations for how to increase and integrate social science throughout its work.

Following the Social Science Task Force recommendations, staff have formed a Social Science Integration Team, developed a road map for social science integration, including short and long-term goals and objectives, and partnered with California Sea Grant to hire a social science extension specialist. Today's presentation will update the Council on these social science integration efforts undertaken by staff in the last year. The presentation will provide an overview of the vision for social science integration, including specific goals and objectives, and will highlight progress on a few initiatives including building a social science experts community and developing an approach for surveying Delta residents.

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#### BACKGROUND

Over the past five years, an increasing number of efforts have noted the need to increase and integrate the social sciences into Delta scientific research, management, and policy decision-making (see: 2016 Science Enterprise Workshop, the 2017 Delta ISB Delta as Place Review, the 2017-2021 Science Action Agenda, the 2019 Delta Science Plan update, and 2019 Human Dimensions Workshop). In response to these calls, the Delta Science Program convened a six-member independent Social Science Task Force (SSTF) in 2018, charged with developing a

strategy for strengthening and integrating social sciences across the Bay-Delta science, management, and residential communities and throughout the Council's activities. The SSTF's final report, "A Social Science Strategy for the Sacramento-San Joaquin Delta," was released in April 2020 and provided three key findings on the state of social science in the Delta, with recommendations regarding how to address each challenge. The findings include:

- (1) A need for further investment in social science capacity and research;
- (2) A need for a long-term vision for social science research integration; and
- (3) A need to integrate social science into the adaptive management decision-making process in the Delta.

Within each finding, the SSTF provided broad recommendations to overcome identified challenges and guide efforts toward social science integration. The Council have used these recommendations to develop actionable objectives. The main difference between an Action Item staff report and an Information Item staff report is the upfront expectation that an action or decision will be made by the Council. A staff report presents information that the Council may or may not want to make a decision and will likely result in a direction to staff; with an Action Item, the expectation is the Council will make a decision and may offer additional direction to the staff.

#### VISION FOR SOCIAL SCIENCE INTEGRATION

Council staff have developed three overarching goals which are directly responsive to the SSTF recommendations and outline areas of focus for social science integration efforts. Within each of these goals, specific objectives have been developed:

*Goal 1: Outreach and Network-Building:*

- Objective 1: Build widespread awareness and uptake of the Social Science Strategy
- Objective 2: Establish and coordinate an external network of social scientists

*Goal 2: Social Science Capacity and Integration:*

- Objective 3: Enhance funding for social science
- Objective 4: Enhance internal coordination

- Objective 5: Enhance internal capacity
- Objective 6: Integrate social sciences into the Delta Science Strategy

*Goal 3: Social Science Knowledge Development and Implementation:*

- Objective 7: Collaboratively develop a conceptual framework for the Delta as a social-ecological system
- Objective 8: Identify social indicators
- Objective 9: Identify actions for further implementation of the Social Science Strategy
- Objective 10: Develop and measure metrics of success for social science integration
- Objective 11: Integrate social science concepts and practices into Council initiatives

To evaluate progress on these goals and objectives, staff have developed metrics, including 20 internal benchmarks. These metrics will be reviewed, assessed, and updated annually based on adaptive management principles, ensuring that social science integration is a robust process that improves over time through continuous learning and evaluation.

*Progress Updates on Social Science Implementation*

Over the past year, social science integration efforts across the Council and the broader Delta collaborative science community have resulted in progress advancing multiple objectives within each goal.

**GOAL 1: OUTREACH AND NETWORK BUILDING**

Substantial efforts have been made to communicate findings from the SSTF and share the social science integration goals and objectives to Delta collaborative science and interagency policy venues. Outreach efforts have focused on raising awareness of the SSTF process and final report, soliciting input and feedback on integration goals and objectives, and building collaboration and support for implementing this work.

Additionally, the Council has launched an effort to build a network of social science scholars and practitioners, the “Bay-Delta Social Science Community of Practice” (CoP), who are interested in investigating the human dimensions of the Bay-Delta. The key purposes of the CoP are to build more expertise and capacity across a wide

range of social science disciplines and to facilitate collaboration and coordination among social science experts and between social and natural scientists working in the Bay-Delta. The CoP aims to advance “One Estuary, One Science” by ensuring that social and behavioral sciences and interdisciplinary perspectives are fully integrated into the collaborative science landscape. A CoP kickoff event was held at the Bay-Delta Science Conference in April 2021, where more than 70 attendees gathered, vocalizing support for building a social science community and discussing the objectives and scope of this community’s work (CoP Kickoff Meeting Summary).

Based on input from event participants and follow up outreach, the CoP will focus on: (1) providing forums to present and communicate applied social science research findings (e.g., workshops, symposia, public brown-bag seminars); (2) synthesizing past social science and humanities research in the Bay-Delta and other comparative complex social-ecological systems; (3) collaborating to develop research priorities for social science and interdisciplinary investigations in the Bay-Delta; and (4) designing longitudinal data collection efforts to better understand human well-being and monitor social change in the estuary over time. The first public brown-bag seminar series emerging out of the CoP efforts will take place virtually in Fall 2021, featuring four talks on different aspects of environmental justice (Seminar Series flyer).

#### GOAL 2: SOCIAL SCIENCE CAPACITY AND INTEGRATION

In addition to external coordination and capacity building, internal coordination and capacity building is also under way. Staff have developed a cross-divisional Social Science Integration Team (SSIT), comprising of staff representing the planning division, science program, and executive division at the Council. The SSIT that meets regularly to advance strategic integration goals and objectives and work through opportunities and barriers to integrate social science perspectives into Council initiatives.

Multiple new staff have backgrounds in different social science and humanities disciplines, contributing diverse subject matter expertise on different ways to incorporate social dimensions of the Delta into the Council’s work. Capacity has also been expanded by partnering with California Sea Grant to develop a new social science extension specialist position, who will focus on building better understandings for the Delta communities and bridging between academic social sciences and management and policy needs. Additionally, new appointees to Delta science advisory bodies, including the Delta Independent Science Board and the Delta Science Program’s Science Advisory Committee, include scholars from multiple social science disciplines (e.g. political science, economics, American studies, environmental justice). Currently, Council staff are working to build a

repository of relevant resources and literature to better understand the best available social science on multiple topics relevant to the Council's work.

With regards to enhancing funding for the social sciences, the Delta Science Program's 2020 Proposal Solicitation Notice included a new call for integrated social-ecological systems proposals, seeking to fund more interdisciplinary research. Despite this effort to solicit more social and interdisciplinary science proposals, the SSIT and Delta Science Program acknowledge that relatively few successful projects fully integrated a social science perspective. Staff are currently analyzing barriers to funding social or interdisciplinary science projects and are planning for greater efforts to improve interdisciplinarity represented in future funding opportunities.

To integrate with the Delta Science Strategy, the newly developed Social Science CoP has been leveraged to increase social science representation and social or interdisciplinary science research priorities in the update to the Science Action Agenda (SAA), currently underway. Multiple Management Needs in the new SAA emphasize a growing interest in understanding the social aspects of the Delta (i.e., improve coordination and integration of largescale experiments, data collection, and evaluation across scales and institutions; expand multi-benefit approaches to managing the Delta as a social-ecological system; build and integrate knowledge on social processes and human behavior to support effective and equitable management; and assess and anticipate climate change impacts to support successful adaptation strategies).

### GOAL 3: SOCIAL SCIENCE KNOWLEDGE DEVELOPMENT AND IMPLEMENTATION

Early-stage efforts have begun to develop more social science knowledge specific to the Bay-Delta. Specifically, staff are strengthening collaborations with other estuarine systems (e.g., Puget Sound, Chesapeake Bay, Everglades) to explore interdisciplinary conceptual frameworks that help to articulate relevant linkages between the human and natural components of estuarine systems. The SSIT is also collaborating with the San Francisco Estuary Partnership through their Estuary Blueprint Update process to build coordinated social science integration efforts across the estuary.

Additionally, the SSIT is beginning to develop an approach for surveying Delta residential households to collect more demographically-representative data on residents' values, attitudes, opinions, and concerns about the Delta as an evolving place and current and anticipated climate change risks. This survey is intended to serve as a pilot to develop a longitudinal data collection approach to measure indicators of human well-being and monitor social-ecological change in the estuary over time. To inform the development of this survey, past survey efforts of Delta

communities are being reviewed and synthesized to compile available historical data and identify trends and gaps. Thus far, the team has identified and reviewed 19 surveys fielded to Delta stakeholders in the past 25 years.

Key findings indicate that existing data over-samples the easiest-to-reach and most engaged communities who live, work, and recreate in the Delta, and vastly under-represent the full population of the region. These surveys have predominantly focused on specified target populations, most commonly recreationalists (e.g. fishers, boaters, trail users), which inhibits the generalization of survey findings to other, equally important, sub-populations. Additionally, there are several topics and sub-populations for which there has been little to no systematic quantitative data collection efforts. These gaps include limited attention to Secondary Zone residents and agricultural communities, few measurements of attitudes toward or knowledge of environmental issues (e.g., risk perceptions, climate change literacy) or environmentally relevant behaviors (e.g. stewardship behavior, individual climate adaptation), and very little attention toward fundamental components of the social-ecological resiliency, including housing stability, employment, food security, and access to healthy living environments, including clean air and drinking water. The next steps of survey development will engage a collaborative group of social scientists, Delta stakeholders, and interagency scientists and planners to provide input on .

Finally, the SSIT staff are working to integrate social science tools and approaches into ongoing Council initiatives, including the Delta Adapts Adaptation Strategy, the Environmental Justice Issue Paper, and the implementation of the Public Participation Plan. These efforts include recruiting social science scholars and experts to serve on advisory groups, integrating participatory research approaches and ethical review practices when information or data are being collected from human subjects, and integrating theory from public administration and environmental governance disciplines to inform ongoing efforts to improve public participation.

#### QUESTIONS FOR COUNCIL DISCUSSION:

1. What does success for social science integration look like? Are there other objectives that we should include in the social science integration vision or additional outcomes we should measure to track progress?
2. What types of social science integration activities (e.g., a survey of Delta residents, funding new research, synthesis, community of practice development, student/ staff training opportunities, outreach, and communications) would you like to see prioritized?

3. What questions do you have about Delta communities or Delta governance that the social sciences may inform?
4. How would you like to be involved and stay informed on these efforts?

FISCAL INFORMATION

Not applicable.

LIST OF ATTACHMENTS

None

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