

Aug 2021

Social Science Integration in the Sacramento-San Joaquin Delta



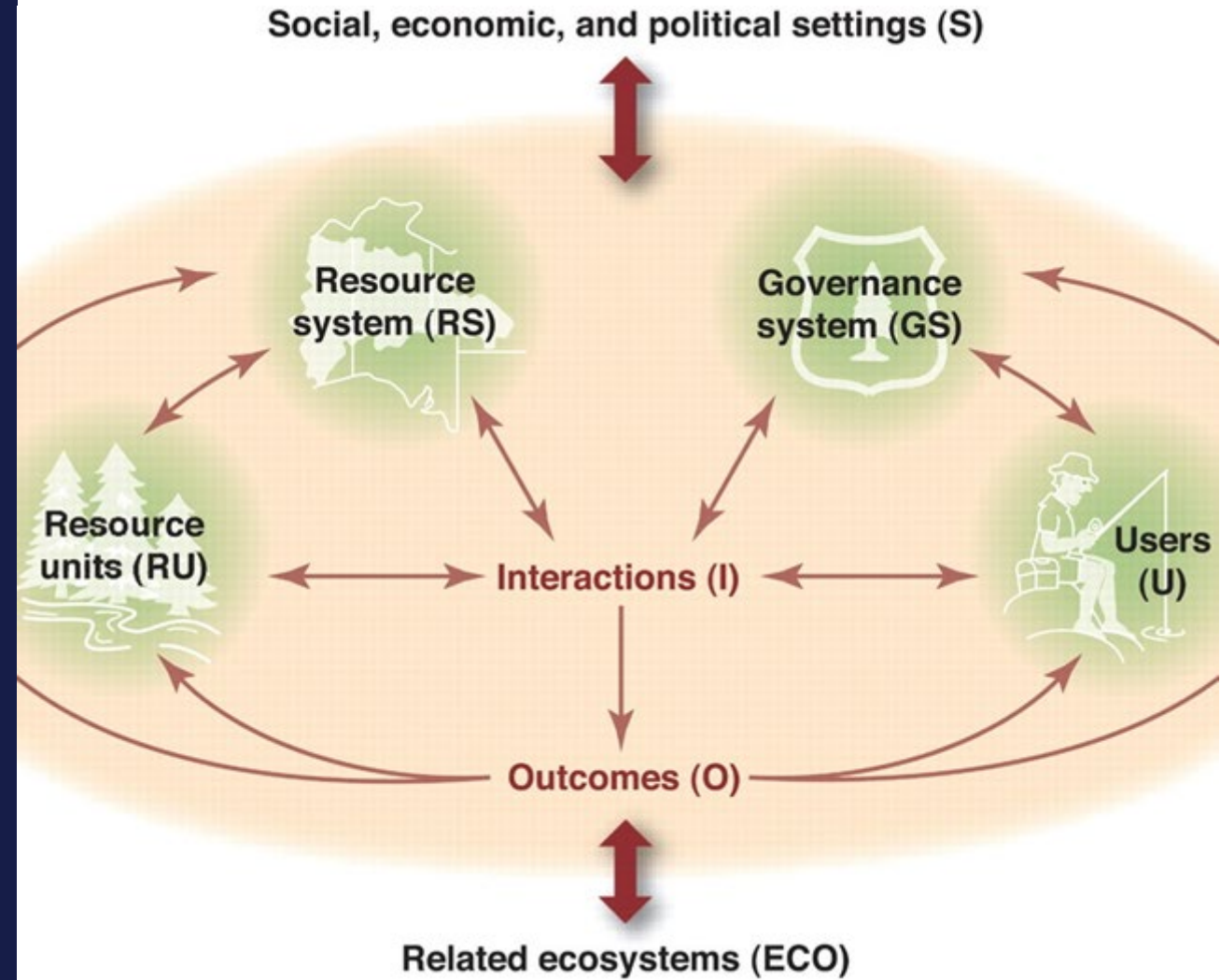
**Delta
Stewardship
Council**

A CALIFORNIA STATE AGENCY

01.

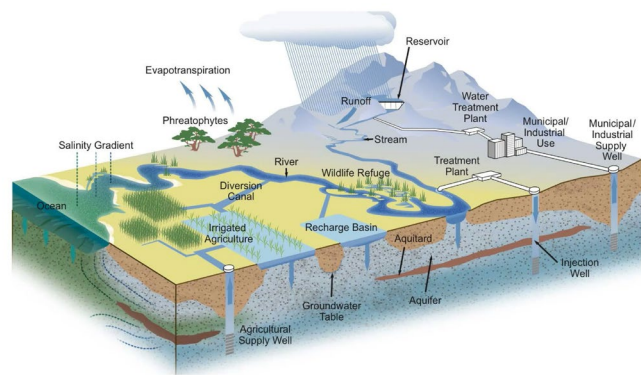
WHAT IS SOCIAL SCIENCE?

Bay-Delta: A Complex Social- Ecological System



(Ostrom 2009)

Groundwater and Surface Water



From CA Water Plan 2014

Social, economic, and political settings (S)

Resource system (RS)

Governance system (GS)

Resource units (RU)

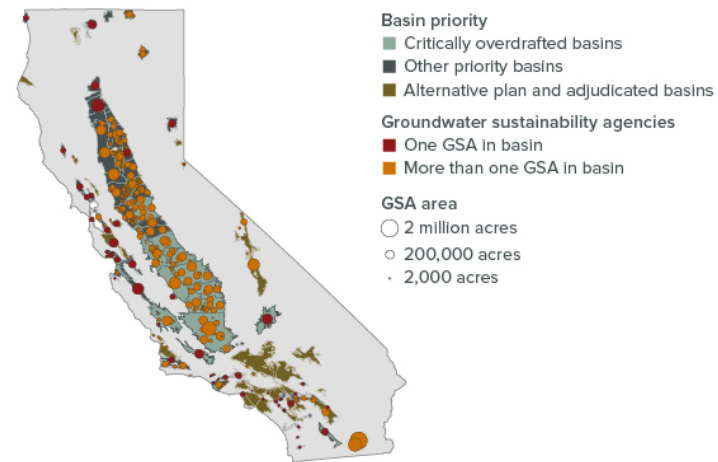
Interactions (I)

Users (U)

Outcomes (O)

Drinking water access
Agriculture productivity
Groundwater-dependent ecosystems
Climate resilience

GROUNDWATER AGENCIES VARY IN SIZE AND RANGE



Source: CA DWR

Note: SGMA established different procedures for adjudicated basins (where courts settled disputes over how much groundwater can be extracted by each land owner) and for local groundwater agencies that have operated their basins sustainably for at least 10 years and have submitted alternative plans.

From: PPIC Blog, August 2017.



(Ostrom 2009)

What is social science?

“...social science disciplines seek to understand social processes, social phenomena, or individual human attributes that are critical to the effectiveness of management decisions, including those on environmental restoration...”

– Delta Social Science Task Force



Public policy:

Evaluate policies and governance processes at different spatial and temporal scales to understand impact on mitigating invasive species spread

Psychology:

Measure stakeholder opinions and preferences to inform the development of effective flood risk strategies

Communication:

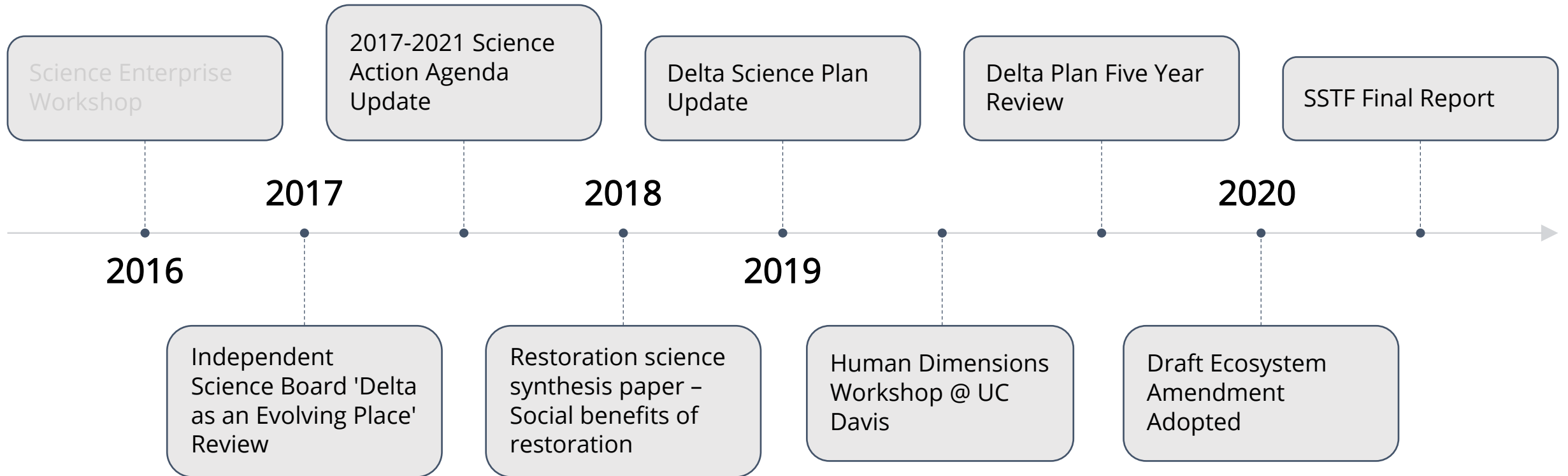
Determine effective messaging frames that motivate conservation management practice adoption on private lands

Anthropology:

Identify conflicting senses of place that contribute to trust and conflict that influence willingness to engage in climate adaptation

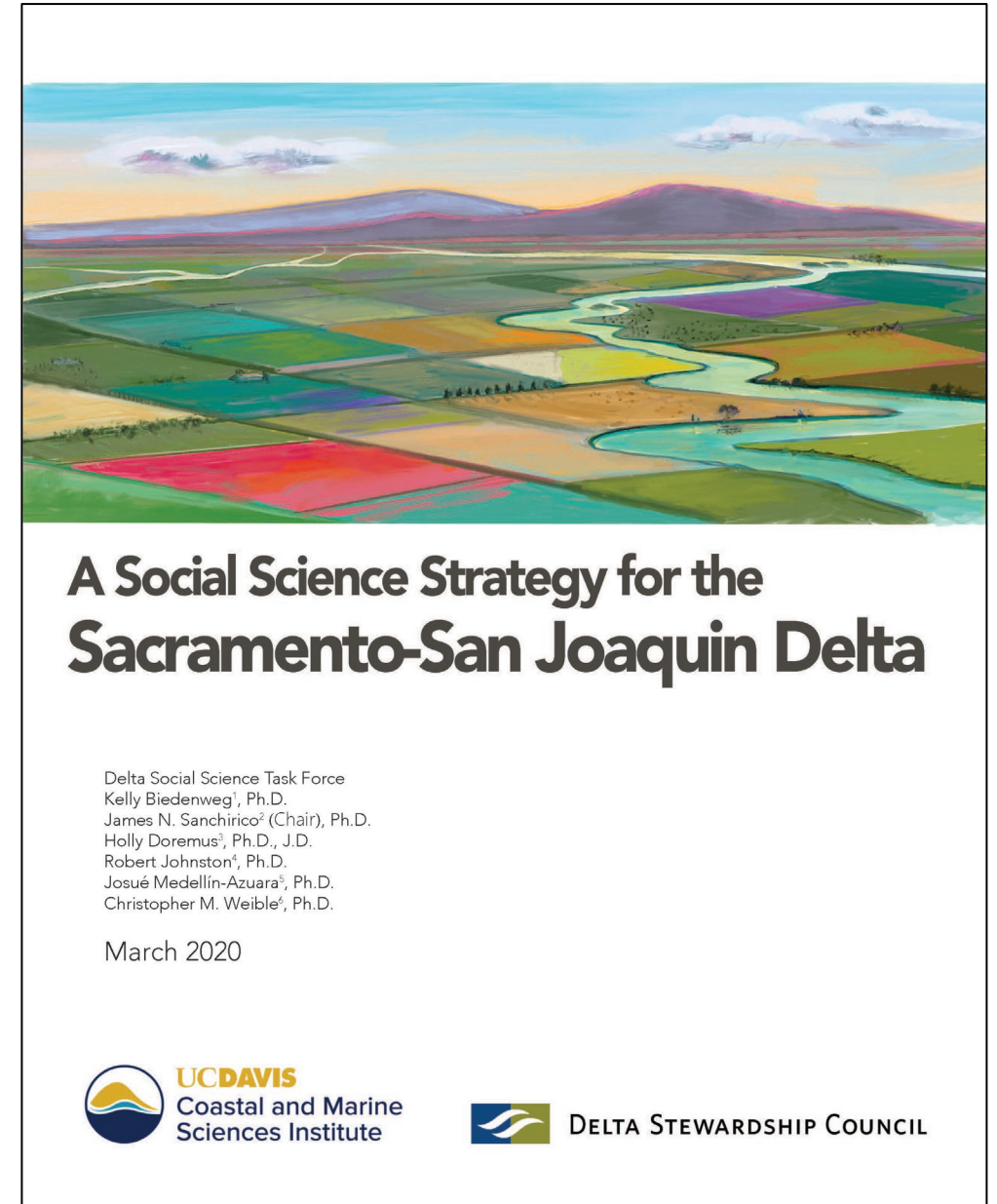
02. CATALYZING DELTA SOCIAL SCIENCE

Growing Calls for Social Science



Social Science Task Force

1. There is a lack of social science capacity and investment
 - Invest in social science studies
 - Invest in external network of social scientists
 - Invest in internal social science capacity at the Council
2. Research activities are ongoing, but there is no long-term vision for social science integration
 - Collaboratively develop conceptual framework
 - Establish improved social indicators
 - Integrate social and biophysical science to improve decision making
3. The adaptive management process is not informed by the social sciences
 - Evaluate institutional, cultural and individual barriers to learning & integration
 - Reduce barriers to integration



Social Science Vision for the Delta

Emerging from Delta Social Science Task Force findings and recommendations



Goal 1:

Outreach and
network building

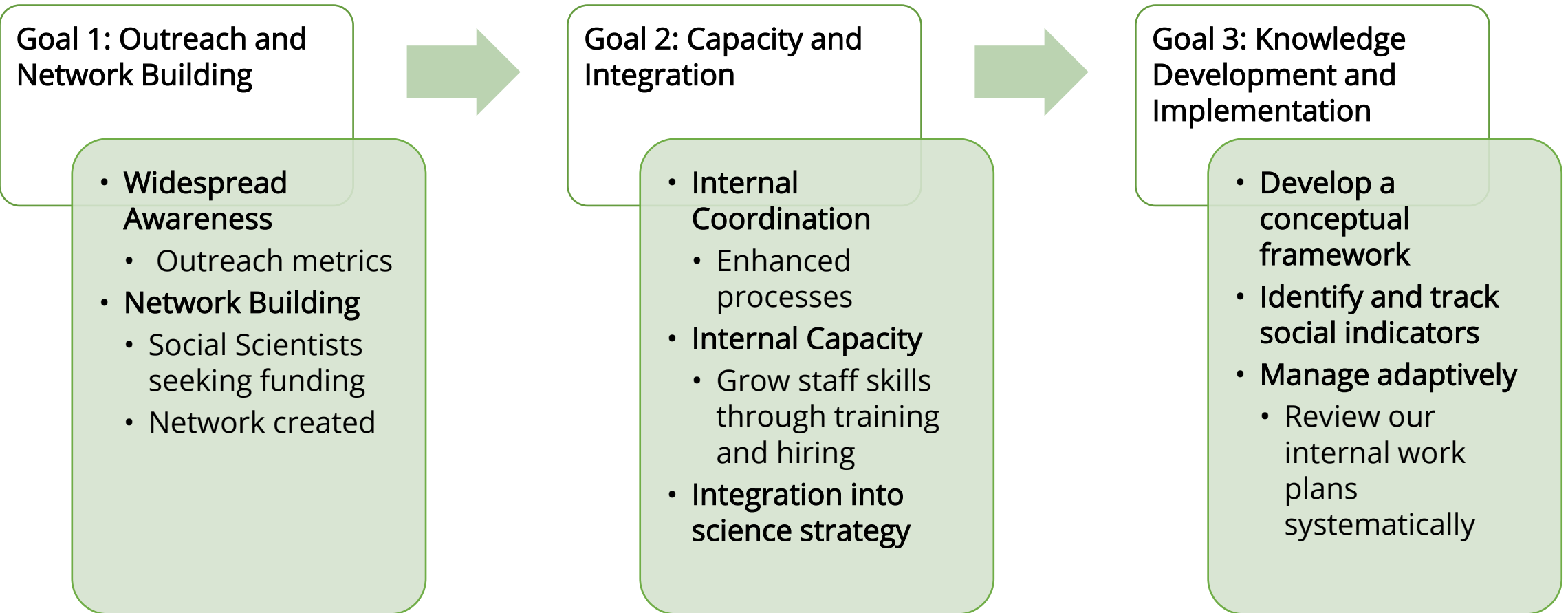
Goal 2:

Social science
capacity and
integration

Goal 3:

Social science
knowledge
development and
implementation

Social science objectives & tracking progress

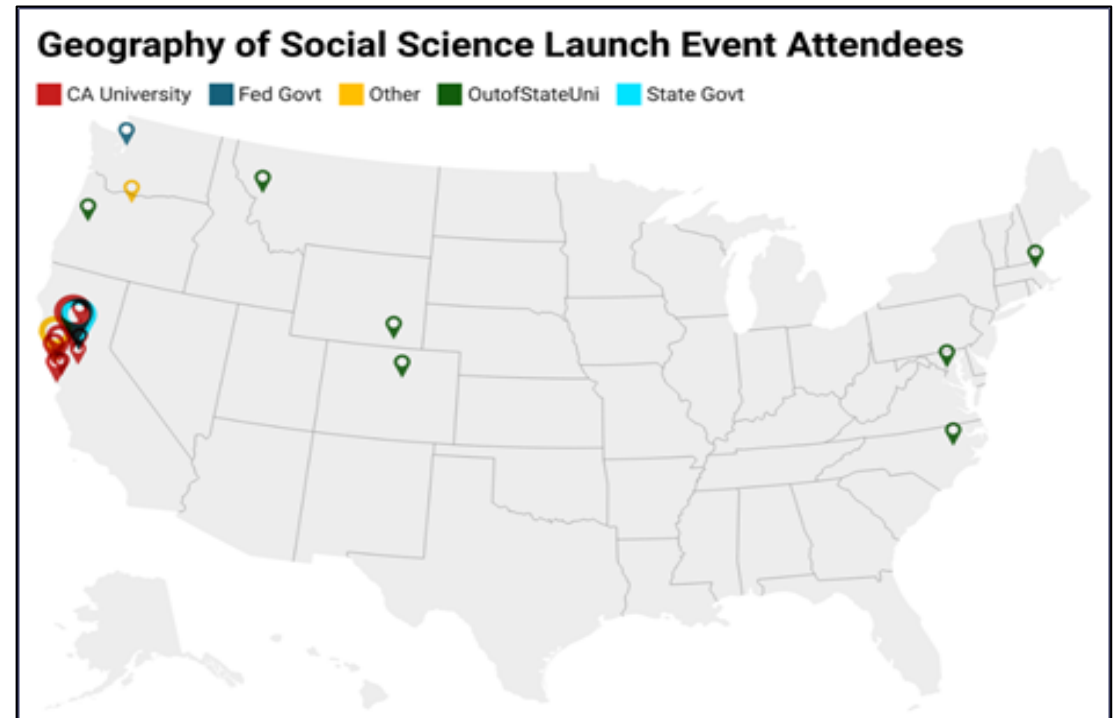
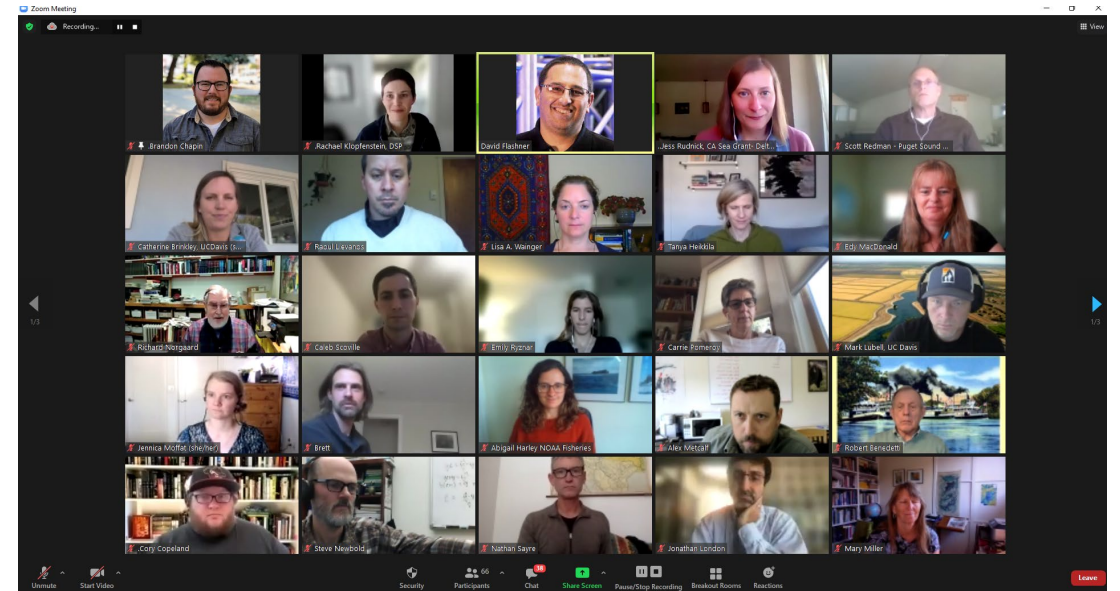


03.

PROGRESS UPDATES ON IMPLEMENTATION

Goal 1: Outreach and network building

Building a Bay-Delta Social Science Community of Practice



Community of Practice Activities

- Communicate social science
 - Brownbag seminars, workshops, symposia
- Develop resources and synthesize research
 - Build social science research repository
 - Review and synthesize available data and key gaps
 - Training opportunities
- Build collaborative research efforts
 - Develop social and interdisciplinary science priorities
 - Facilitate connections with natural/ biophysical scientists
 - Longitudinal studies to monitor trends and change
 - Comparative studies with other estuaries

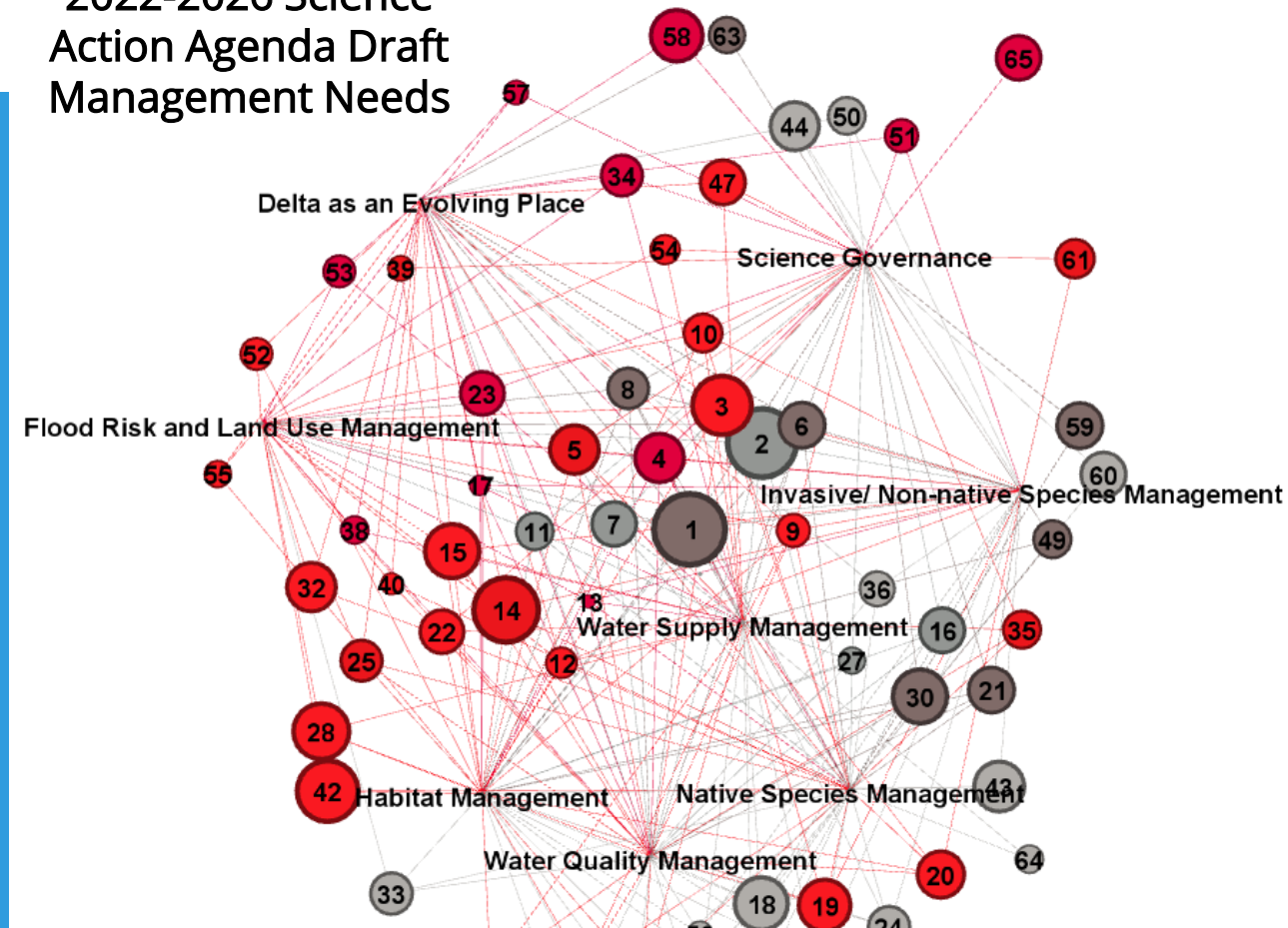


Research priorities from Community of Practice

Goal 2: Capacity and Integration

Developing interdisciplinary research priorities in the Science Action Agenda

2022-2026 Science Action Agenda Draft Management Needs

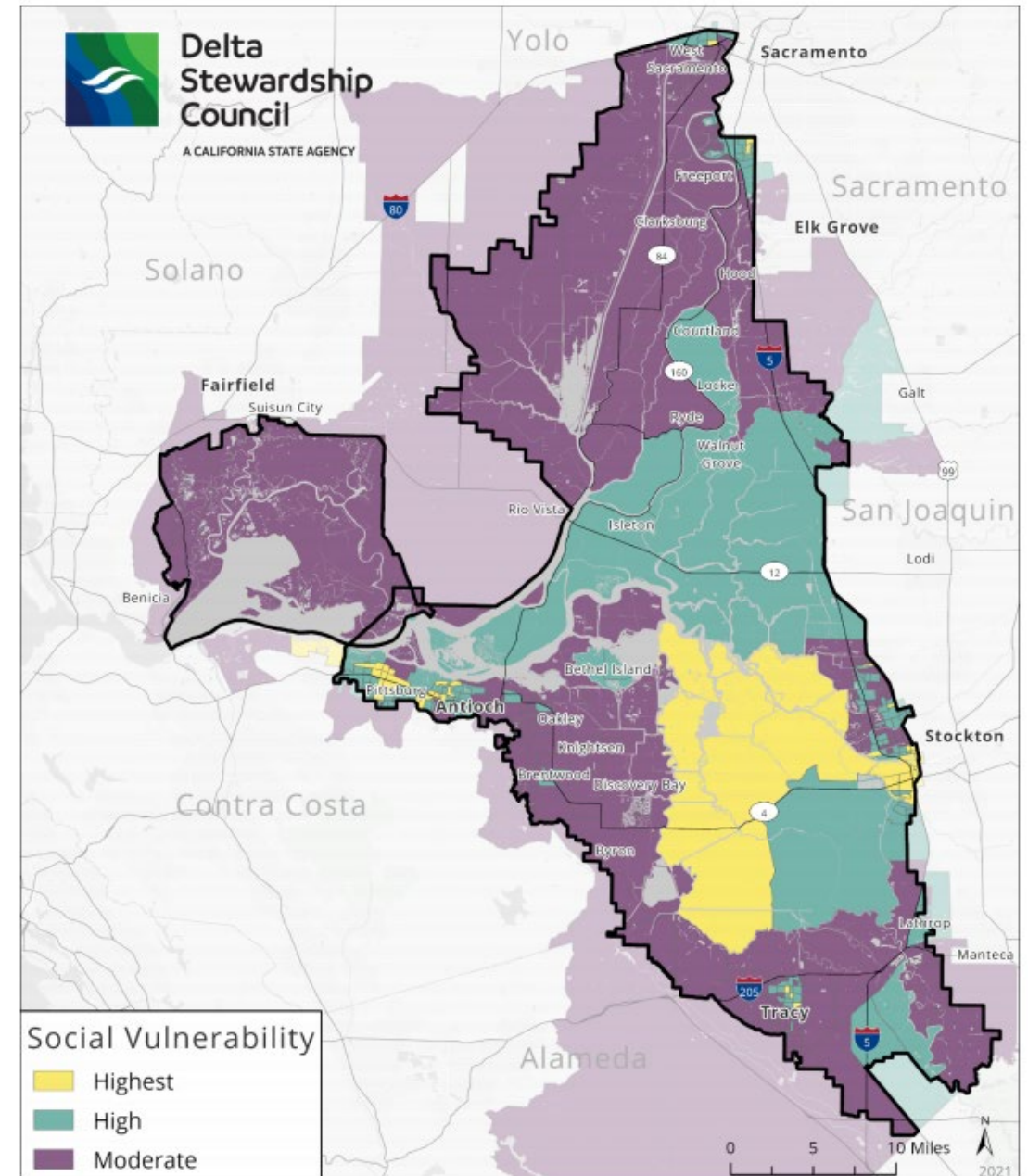


- Expand multi-benefit approaches to managing the Delta as a social-ecological system
- Build and integrate knowledge on social processes and human behavior to support effective and equitable management
- Assess and anticipate climate change impacts to support successful adaptation strategies
- Improve coordination and integration of large-scale experiments, data collection and evaluation across scales and institutions
- Enhance monitoring and model interoperability, integration and forecasting
- Acquire new knowledge and synthesize existing knowledge or interacting stressors to support species recovery

Goal 3: Knowledge development and implementation

Building data to assess social well-being trends and change over time

Social Vulnerability Index
(Delta Adapts: Equity Technical Memo, 2020)



Review of past survey efforts in the Delta

19 surveys in past 25 years

- Recreational uses: location, mode activities
- Tourism and recreation-based economy
- Resident and user attitudes and perceptions of Delta issues
- Fish consumption



Figure 3 Fliers in English, Spanish, and Chinese

Delta Visitor Survey



SACRAMENTO | SAN JOAQUIN

DELTA

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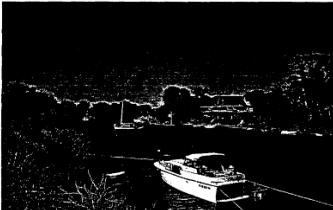
DeltaVisitorSurvey.com

Thank you for your participation!

Let us know what you think!



The Economic Impact of Recreational Boating and Fishing in the Delta



George Goldman □ Bruce McWilliams □ Vijay Pradhan □ Cheryl Brown

Department of Agricultural and Resource Economics
University of California at Berkeley

November 1998

Questions for Council Members

1. What types of social science integration activities would you like to see prioritized?
e.g. survey of Delta residents, EJ, funding new research, research synthesis, community of practice development, training opportunities, outreach, communications
2. What does success for social science integration look like? Are there other objectives that we should include in the social science integration vision?



THANK YOU

