



# Human Dimensions Research in Delta Environments

## Purpose:

The purpose of this workshop was to bring together social scientists from across the country to highlight how they study and address management challenges that are similar to those in the Sacramento-San Joaquin Delta. The workshop showcased a diversity of social science fields, such as economics, anthropology, public policy, social psychology, and landscape design, which are available for addressing complex management challenges. Topics included invasive species management, flood risk and management, water and ecosystems, and social science integration.

## Key Takeaways:

- Many environmental and natural resource management challenges are social questions.
- Learning how to best utilize science to inform decision-making is a social science endeavor.
- Social sciences include a diverse set of disciplines, approaches, and tools for researching and managing the Delta as a coupled human and natural system.
- Integration of natural and social science perspectives is key, but social scientists also need to work across social science disciplines.
- We need to build the capacity for social scientists within the Delta science enterprise.

## Delta Social Science Task Force

### Background

The Task Force was established by the Delta Stewardship Council's Delta Science Program and is a key action recommend in the *Delta Science Plan*. The Delta Science Program and the UC Davis Coastal and Marine Sciences Institute coordinate the Task Force, and it is charged with developing strategic recommendations for engaging and integrating social science in the Delta science enterprise.

### Progress

The Task Force was formed in late 2018 with input to the Delta Science Program on its charge and composition from key interest groups. A kickoff meeting was held in January 2019, where Task Force members received input from federal, state and local agencies, and stakeholders about key management issues and challenges relevant to social science issues in the Delta. Outcomes of the kickoff meeting informed the July 2019 workshop themes.

### Next Steps

Following the workshop, the Task Force will begin drafting their strategy report. The draft is anticipated by mid-December with time for public review. The final report will be completed in March 2020.

## Presentation Highlights:

- **Keynote:** We can improve how science contributes to better decisions by applying social science approaches and tools, building relationships, being persistent and adaptable, and identifying how scientific information can be applied to decision-making.
- **Invasive Species Management:** Economic analyses are useful for evaluating responses to invasive species and assessing ecological and economic uncertainty of new invasions; micro-targeting can be a valuable tool for improving conservation messaging and overall communication; and governance plays a major role in the effectiveness of response efforts to new invasive species.
- **Flood Risk and Management:** Surveys, interviews, and environmental economics tools are all very useful approaches to identify what a community values, where there are tradeoffs, and when adaptation investments should be made. Presenters provided examples of how social science research was used to 1) find innovative solutions to multi-benefit flood risk/set-back levee projects and 2) inform when to invest in levee improvements.
- **Water and Ecosystems:** Improving management approaches through on-going learning in complex ecosystems is often challenging but necessary; research that engages stakeholders in landscape design can be applied at large and small scales (e.g., Franks Tract Futures); and anthropology and political ecology can help identify important humanistic themes (e.g., related to sense of place, disagreement and trust) that occur in conflict and ecosystem recovery.
- **Social Science Integration:** Panelists from the Chesapeake Bay, Puget Sound, NOAA Fisheries, and U.S. EPA discussed the importance of connecting at the local level and identifying shared benefits. They also recommended frameworks and performance indicators (i.e., Integrated Ecosystem Assessments, Management Strategy Evaluations, and human well-being indicators) that rely on social science integration.

## More Information:

Speaker information and a video recording of the workshop are now available on the UC Davis Coastal and Marine Science Institute webpage at [https://marinescience.ucdavis.edu/engagement/past-events/human\\_dimensions\\_research](https://marinescience.ucdavis.edu/engagement/past-events/human_dimensions_research).

For more information regarding the Delta Social Science Task Force, please visit the Delta Stewardship Council webpage at <https://deltacouncil.ca.gov/> or contact [Rachael.Klopfenstein@deltacouncil.ca.gov](mailto:Rachael.Klopfenstein@deltacouncil.ca.gov).



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