

# The Future of the San Francisco Bay-Delta Science Enterprise: How Can Science Best Inform Policy-Makers and Long-Term Planning Efforts?

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The San Francisco Bay-Delta science enterprise refers collectively to the many government agencies, universities, resource stakeholders, and private entities that are conducting scientific research and monitoring in the Estuary. In 2016, the Delta Stewardship Council and USGS hosted the Science Enterprises Workshop, at which experts representing multiple regional science enterprises came together with scientists and managers in the Bay-Delta to discuss ways in which a regional science enterprise might be improved to better serve the interests of its stakeholders and the public. In this panel, local policymakers and experts will share impressions from that workshop and the dialogue that has followed it. What lessons do we think we have learned from other systems like the Everglades, the Chesapeake Bay Watershed, and the Great Lakes where large State/Federal collaborative programs exist? What have we learned from smaller systems that do not have large formalized programs? Panel questions will explore panelist views on Bay-Delta application of future enterprise-level goals derived from the cross-regional discussion at the Science Enterprises Workshop:

- (1) Expanded effort to communicate scientific process and findings to resource constituencies and the public
- (2) Strengthening leadership and decision-making that coordinates the various parties
- (3) Enhanced use of integrated modeling and forecasting to support policy decision making
- (4) Enhanced integration of social sciences with the natural sciences and engineering
- (5) Enhancement of fundamental science processes to ensure credibility and legitimacy across constituencies
- (6) Expanded use of competitive funding to bring the best and brightest to address important questions
- (7) Increased commitment to making the difficult decisions required to successfully implement adaptive management

The discussion will be managed to allow audience members to pose questions to the panel, and for the discussion to follow paths of interest to the panelists and audience.

**Keywords:** Bay-Delta, management, governance, funding, integrated modeling, science-policy

**Session Title:** The Future of the California Bay-Delta Estuary Science Enterprise

**Speaker Biographies:**

**Jessica Law:** Jessica Law is the Chief Deputy Executive Officer at the Delta Stewardship Council. Prior to joining the Council, Ms. Law worked in the private sector consulting for state, regional, and local agencies on an array of land-use and environmental programs, with a special focus in public outreach and communications. The majority of her work focused on the Central Valley and the Sacramento-San Joaquin Delta. Since March of 2016, Ms. Law has successfully planned and executed three semiannual Delta Plan Interagency Implementation Committee meetings for the Council, with focused discussions on interagency priorities for high-impact science actions, adaptive management, ecosystem restoration, integrated ecosystem modeling, and other State-Federal agency priorities that support implementation of the Delta Plan and the Delta Science Plan.

**Mike Chotkowski:** Dr. Mike Chotkowski is the Bay-Delta Science Coordinator, Pacific Region at the USGS. Dr. Chotkowski started his federal career as a fish biologist with the Bureau of Reclamation, and he joined the USGS in 2015. He advises regional USGS science leadership in developing and maintaining an effective, efficient, and integrated scientific portfolio in the San Francisco Bay-Delta. Dr. Chotkowski also works with USGS Science Centers and partners on collaborative efforts to address scientific uncertainties that are critical to water management in the Bay-Delta region and in California.

**John Callaway:** Dr. John Callaway, an internationally recognized expert in wetland restoration, specifically wetland plant ecology and sediment dynamics, was unanimously appointed by the Council as Lead Scientist at the July 2017 Delta Stewardship Council meeting. His research includes projects in San Francisco Bay and Tijuana Estuary. This work has been funded by the National Science Foundation, the Environmental Protection Agency, California Sea Grant, and other agencies. Dr. Callaway received his PhD in Oceanography and Coastal Sciences from Louisiana State University in 1994. Prior to his position at USF, he was the Associate Director of the Pacific Estuarine Research Laboratory (PERL) at San Diego State University.

**Josh Collins:** Dr. Josh Collins is the Lead Scientist at San Francisco Estuary Institute (SFEI) where he oversees the development and integration of SFEI's scientific work. Dr. Collins is a landscape ecologist and regional ecological planner with special expertise in mapping and assessing stream and wetland ecosystems. He has extensive practical experience as a leader for a variety of efforts in the West to set long-range ecological goals and assessment methods. Among his current advisory roles, he chairs the technical team supporting California's new wetland and riparian area protection policy. Josh's experience and current work afford him a clear view of San Francisco Bay science and management efforts.

**Randy Fiorini:** Chair of the Delta Stewardship Council. Randy Fiorini was born in Turlock, CA, where he was raised on his family's tree fruit and wine grape farm. After graduation from Cal Poly San Luis Obispo in 1975, Mr. Fiorini returned to Turlock and assumed managing partner responsibilities for Fiorini Ranch. Interested in agricultural industry affairs, Mr. Fiorini was

elected to serve as the Chairman of the California Cannery and Growers, Chairman of the California Cling Peach Advisory Board, and was appointed by two Presidents to serve on the US Agricultural Technical Advisory Committee for Fruits and Vegetables. In March 2010, Governor Arnold Schwarzenegger appointed Mr. Fiorini to serve on the Delta Stewardship Council. Mr. Fiorini was elected by his colleagues as Vice-Chair at their initial meeting and in 2014 he was elected Chair. He was reappointed to his position by Governor Jerry Brown in May 2016.

**Jason Peltier:** Jason Peltier is the Executive Director and Board Chair at the San Luis and Delta Mendota Water District. Prior to that, Mr. Peltier was the Chief Deputy General Manager of Westlands Water District. Mr. Peltier also served for six years as the Deputy Assistant Secretary for Water and Science at the Department of the Interior in Washington D.C. In this position, he was a part of the management team responsible for the Bureau of Reclamation and the U.S. Geological Survey. The bulk of his professional career has been spent as the manager of the Central Valley Project Water Association, an organization representing the interests of the eighty water districts serving three million acres of irrigated farm land and four million households..

**Richard Roos-Collins:** Richard Roos-Collins is Principal in the Water and Power Law Group. He specializes in settlements in complex cases involving multiple parties, interests, and laws. He has drafted and negotiated more than 50 such settlements. These include: Klamath Basin Restoration and Hydropower Agreements, Mono Lake Cases, and the Land Conservation Commitment Stipulation for the bankruptcy reorganization of Pacific Gas and Electric Company. Mr. Roos-Collins is Adjunct Professor at the University of San Francisco Law School. He is serves as general counsel to the Hydropower Reform Coalition (Washington, D.C.), which represents more than 2 million people interested in balancing power and environmental benefits. He is chairman of the Board of Directors for the Low Impact Hydropower Institute (Portland, ME), the nation's only program to certify the environmental performance of such power assets.

**Carl Wilcox:** Carl Wilcox is the Delta Policy Advisor to the Director of the California Department of Fish and Wildlife, which included directing the Department's involvement in the Bay Delta Conservation Plan. Prior to his assignment as Policy Advisor, he managed the Department's Bay Delta Region and was responsible for fisheries and wildlife management, lands management, and habitat conservation planning and permitting programs. Mr. Wilcox has a Master of Science in Biology from New Mexico Highlands University and a Bachelor of Science in Biological Conservation from California State University Sacramento.

**Leo Winternitz:** Leo Winternitz provides expert advisory services on waterways restoration, conservation programs, water resources, and flood management at GEI Consultants. As a former senior advisor at The Nature Conservancy, Mr. Winternitz is focused on building strategic, scientific and technical capacity in the field to implement major nature restoration projects. Mr. Winternitz has been actively involved with the Bay Delta Conservation Plan, the Delta Stewardship Council's Delta Plan, and activities associated with the Delta Conservancy, Delta Protection Commission, and the State Water Resources Control Board. He is also a former deputy director of the CALFED Bay-Delta Program. Throughout his 39-year career, Winternitz has written numerous articles and reports on topics related to water quality, water resources and natural habitats, and has been honored with a Distinguished Service Award from the Sacramento Regional Water Authority, as well as two Outstanding Professional Accomplishment

commendations from the California Department of Water Resources (DWR). He holds a bachelor's degree in biology from Gonzaga University, and a master's degree in environmental management with an emphasis on water resources from the University of San Francisco.