

# Ecosystem Amendment Performance Measures Independent Scientific Peer Reviewer Biographies

## **Anna Sturrock, Ph.D.**

Dr. Anna Sturrock is a Research Scientist at the Center for Watershed Sciences at the University of California, Davis. She has worked with marine and anadromous fishes for more than 17 years, using interdisciplinary approaches (primarily natural and applied tags, field and lab experiments, and modeling) to explore the factors underpinning fish habitat use, migration behavior, and physiology. Much of her research involves generating empirical data to inform policy and management, focusing on processes driving ecosystem function and sustainable resource delivery in a changing climate. She has worked in the California Central Valley for more than seven years, focusing on Chinook salmon habitat use, population dynamics and feeding ecology, and monitoring fish responses to hatchery, habitat and flow management actions. She is a reviewer for more than 15 journals and has provided science support for various restoration and conservation efforts, including the California State Water Resources Control Board “Amendment to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary: San Joaquin River Flows & Southern Delta Water Quality”.

## **John G. Williams, Ph.D.**

John G. Williams is a retired consultant who worked for many years on salmon and salmon habitats in the Central Valley, and on environmental flow assessment. He is the author of a CALFED-funded monograph on Chinook salmon and steelhead in the Central Valley, the main author of recent book on environmental flow assessment, and of numerous articles and consulting reports on these topics. He served as Special Master for *EDF v. EBMUD*, major litigation dealing with flows for Chinook salmon and steelhead in the American River, and as a member of various review and technical panels, including the NOAA Fisheries Technical Recovery Team for Central Valley salmonids. He also served two terms as an elected director of the Monterey Peninsula War Management District. He has a Ph.D. in physical geography, and his early publications and reports dealt with climatology, hydrology, plant physiological ecology, riparian vegetation, and coastal estuaries.

## **Rebecca Buchanan, Ph.D.**

Dr. Buchanan is a Senior Research Scientist in the School of Aquatic and Fishery Sciences at the University of Washington. She specializes in studies of anadromous fish migration and survival in industrial rivers, and has provided consultation and analysis on numerous release-recapture tagging studies of migrating salmon and steelhead in the Sacramento-San Joaquin River Delta of California and the Columbia River Basin. She focuses on survival of migrating salmonids and the effects of competing management strategies of water resources and hydropower projects on salmonid populations. She has presented research methods and findings in multiple publications, conferences, and panel reviews, has been a reviewer for more than 15 scientific journals, and has participated in the Collaborative Adaptive Management Team’s Salmon Scoping Team.

**Josh Collins, Ph.D.**

Dr. Collins is the Chief Scientist at the San Francisco Estuary Institute (SFEI). 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 assessing stream and wetland ecosystems. He received his Ph.D. in Entomological Sciences at the University of California, Berkeley and did post-doctoral work in Geography and Ecology at the UC Berkeley and UC Davis. As an ecologist in the public utilities industry, Dr. Collins assessed the impacts of power plants on marine, estuarine, and riverine ecosystems. As a consulting ecologist in private practice, he designed stream and wetland restoration projects and developed methods to assess their performance. Since joining SFEI, Dr. Collins has initiated continuing programs in wetland science, watershed science, historical ecology, and regional GIS. He is a leader for a variety of efforts in the West to set long range ecological goals and he has been instrumental in the development of wetland and stream monitoring and assessment methods for California and the nation. He also chairs the technical team supporting California's new wetland and riparian area protection policy, co-chairs the California Wetland Monitoring Workgroup, and co-leads science support for the San Francisco Estuary Wetlands Regional Monitoring Program.

**Kristin Byrd, Ph.D.**

Dr. Byrd is a Research Physical Scientist at the U.S. Geological Survey in Menlo Park, CA, with expertise in applied landscape ecology and remote sensing. She leads landscape studies of natural and working lands, with a focus on wetlands, rangelands, climate and land use change in the Central Valley of California and in estuaries throughout the U.S. Her research stems from training in vegetation ecology, geospatial analysis, and outreach. In many projects, she uses remote sensing of wetland vegetation to quantify habitat quality for ecological forecasting and wetland carbon stocks for greenhouse gas inventories. She prioritizes the use of open data and open source software to aid tool development for decision makers, and all of her projects include outreach to land managers to support conservation and restoration planning and land management. She has a Ph.D. in Environmental Science, Policy and Management from U.C. Berkeley, an M.A. in Ecology and Systematics from San Francisco State University, and a B.S. in Environmental Science from Cornell University.

**Steve Crooks, Ph.D.**

Steve is a wetland scientist / geomorphologist with 25 years of experience in the response of coastal wetland systems to human impacts and climate change. Steve specializes in translating scientific information to formats accessible to policy and decision makers as well as senior-level managers. He also works within organizations, governments, and agencies to develop teams and initiatives that support capacity building. He regularly briefs US and Foreign governments, government agencies, and Federal, State, and local leaders. He was a lead author of the IPCC 2013 Wetland Supplement. He is an Approved Methodology Expert to the verified Carbon Standard. He leads the U.S. interagency/science community Coastal Wetland Carbon Working Group, incorporating coastal wetlands within the U.S. Inventory of GHG emissions and sinks. He also co-chairs the carbon advisory panel for the Global Environmental Facility Blue Forest Project and is the co-founder of International Blue Carbon Initiative.