
TECHNICAL ADVISOR BIOGRAPHIES ERPP SCIENTIFIC REVIEW PANEL

Doug Ball provides expertise in phytoplankton dynamics. He is a biologist at the U.S. Bureau of Reclamation. He plans, conducts, and evaluates ecological studies in the San Francisco Bay-Delta Estuary, primarily in the areas of phytoplankton dynamics and striped bass egg and larval distribution. He holds a Master's degree in Botany from U.C. Davis.

Randy Baxter provides expertise on the life history of the Delta's resident fisheries, including the splittail and the mechanisms underlying their outflow-abundance relationship. He is an Associate Biologist at California Department of Fish and Game. Mr. Baxter has investigated the uses of the estuary by fish, trends in their abundance and distribution, and impacts of change in freshwater flow. He received his Master's degree in Natural Resources from Humboldt State University, with an emphasis in fisheries.

William Bennet offers the panel expertise in population, community, and fisheries ecology, with emphasis on San Francisco Bay. He is knowledgeable on the influence of multiple factors on fish recruitment and population dynamics, including physical environment, food limitation, predation, introduces species, and toxic chemicals. He is a postdoctoral researcher at Bodega Marine Laboratory and a member of the Interagency Ecological Program Estuarine Ecology Team. He has been the principal investigator for several IEP studies on Delta fisheries. Dr. Bennet received his Ph.D. in Ecology from U.C. Davis.

Serge Birk provides expertise on upper watershed resources management. He is a fisheries biologist at the Central Valley Project Water Association and has been involved with numerous technical groups and committees relating to Bay-Delta restoration including: the Sacramento River Temperature Task Group, IEP Salmon Tech Work Group, and the CVPIA Anadromous Fish Doubling Plan (Sacramento River and tributaries technical work team). He holds a Bachelor's degree in fisheries from Humboldt State University.

Jon Burau is a hydrologist at the U.S. Geological Survey in Sacramento. His expertise lies in the development and application of hydrodynamic models to the San Francisco Estuary. Current research interests include the study of estuarine physics through data collection and analysis including tidal and residual circulation, the long term transport and fate of salinity, suspended sediment, and nonmotile organisms. He is pursuing a Ph.D. at Stanford University in Civil Engineering with an emphasis in Environmental Fluid Mechanics.

Chet Bowling is Chief of the Water Operation Division for the Bureau of Reclamation's Central Valley Operations Office. He oversees the integrated multipurpose operation of the water supply facilities of the Central Valley Project and has been involved in many aspects of the implementation of the Central Valley Improvement Act. Mr. Bowling received his Bachelor's degree in Civil Engineering from U.C. Davis.

Larry Brown is a fisheries biologist with expertise in California's native fishes. He currently works for the U.S. Bureau of Reclamation with primary focus on the Sacramento-San Joaquin Delta. He is a member of the Delta Native Fishes Recovery Team and a member of the Contaminant Effects Project Work Team of the Interagency Ecological Program (IEP). He holds a Ph.D. in Ecology from U.C. Davis.

James Cloern is a biologist with the U.S. Geological Survey in Menlo Park. He has directed a team-study of the San Francisco Bay ecosystem for over twenty years, with emphasis on plankton ecology. He has served on numerous science advisory panels to regulatory/ management programs, including the IEP, Florida Bay Program, and Bay of Brest (France) Restoration Program. He received his Ph.D. in Zoology with an emphasis on lake ecosystem modeling from Washington

State University.

Mark Cocke provides expertise in hydrology, hydraulics and watershed planning. Mr. Cocke has 20 years of engineering experience in California and is currently a Civil Engineer in Water Resources Planning at the Natural Resources Conservation/Soil Conservation Service. He is currently working on restoration plans for a Sierra Nevada meadow and a northern California salmonid stream. Mr. Cocke also serves on a technical team evaluating fish screens for the Central Valley Improvement Act and is a member of the interagency Emergency Watershed Protection team.

Dick Daniel is the Assistant Director for Ecosystem Restoration at the CALFED Bay-Delta Program. He is responsible for managing the preparation of the Ecological Restoration Program Plan. Mr. Daniel came to CALFED after 27 years with the California Department of Fish and Game and six years at the Scripps Institution of Oceanography. He holds a Master's degree from California State University, Humboldt.

Vernon Finney offers expertise in sediment and nutrient budgets on watersheds and river basins. He has worked for over 30 years at the Natural Resources Conservation/Soil Conservation Service. Mr. Finney is currently applying sediment transport equations to communicate the physics of sediment movement in the aqueous environment. He chaired the Great III Erosion and Sediment Inventory for the St. Louis Corps of Engineers. He earned his Bachelor's and Master's degrees in Geology from Florida State University.

Rob Griffith provides expertise in soil science. He is the Regional Soil Program Manager, Pacific Southwest Region at the USDA Forest Service. He is Chair of the California Forest Soils Council. Mr. Griffith earned his Bachelor's degree in Soils Science from Humboldt State University.

Brenda Grewell offers expertise in the following areas: tidal wetland ecology; the effects of salinity, inundation, and disturbance processes on wetland plant communities, distribution; the distribution, habitat conditions; the ecology of rare tidal estuarine and palustrine wetland plant and avian species; and whole plant responses to environmental stresses. She is a Senior Wetlands Ecologist at the Department of Water Resources. She holds a Bachelor's degree from U.C. Davis in Physical Geography and is enrolled in a doctoral program at U.C. Davis in Restoration Ecology.

Bruce Herbold provides expertise on environmental sensitivities of resident fishes of the Delta and on the factors affecting the successful passage of anadromous species. He currently works at U.S. E.P.A. Development of water quality standards relating to salinity for the protection of estuarine habitat has given Bruce extensive experience in the operational and modeling methods of the water projects and how they relate to environmental needs. Recent work has been the design of an experimental implementation of flow and export conditions that satisfied protection of outmigrant salmon smolts while maximizing the information on factors affecting their protection. He has a Ph.D. from U.C. Davis with an emphasis on the community ecology of fishes in the Delta.

Bob Herkert offers expertise in California rice production. He is the Field Services Manager of the California Rice Industry Association (CRIA). Prior to joining CRIA's staff, he served as the Executive Manager of the Colusa County Farm Bureau, where he worked almost exclusively on rice and environmental issues. He graduated from California State University, Chico, with a major in Agricultural Journalism.

Curt Schmutte is an engineer at the California Department of Water Resources. He has successfully lead the System Integrity component of the CALFED program and implemented difficult Delta levee, habitat, and barrier projects. He developed the policies related to the complex issues between levee structures, habitat and endangered species management. He chaired the Bay Delta Oversight Council's Levee and Channel Technical Advisory Committee.

James Snow provides expertise in Delta hydraulics and water quality modeling and scheduling and forecasting State Water Project (SWP) operations. He is a civil engineer at the Department of Water Resources.

David Schoellhamer offers expertise in the area of sediment transport and suspended solids in San Francisco Bay. He is a Research Hydrologist for the U.S. Geological Survey in Sacramento. Dr. Schoellhamer earned his doctorate in Coastal and Oceanographic Engineering from the University of Florida.

Dave Vogel offers expertise in the Delta's anadromous fisheries. He has consulted on numerous fishery resource investigations in rivers throughout the Central Valley and in the Sacramento-San Joaquin Delta. During the 1980's he directed U.S. Fish and Wildlife Service's research activities on Sacramento River anadromous salmonid stocks. Many of these programs entailed major fish population studies and investigations into freshwater and estuarine habitat requirements and factors limiting fish populations. He holds a Master's degree from the University of Michigan in Natural Resources (Fisheries).

Peter Vorster provides expertise in historic conditions of the Bay Delta, water balance modeling, system operations and modeling, environmental restoration, climatology, and historical geography of California. He is currently the staff hydrologist at The Bay Institute. He has served as an expert witness on the hydrology and water management of Mono Basin and the Los Angeles Aqueduct system. He earned a Master's degree in Geography from California State University at Hayward and is enrolled in a Ph.D. program in Environmental Planning at the University of California, Berkeley.

Leo Winternitz provides expertise in monitoring programs for the Sacramento-San Joaquin Delta, San Francisco Bay and Suisun Marsh as required by Water Rights Decision 1485. These programs include discrete water quality sampling, a network of continuous recorders measuring climatological, water quality and hydrodynamic parameters, zooplankton, phytoplankton, fish and wildlife habitat surveys and emergency studies dictated by extreme water year conditions. He is an Environmental Program Manager for the California Department of Water Resources. Mr. Winternitz holds a Master's degree in Environmental Management from the University of San Francisco.

Terry Young is a Senior Consulting Scientist at the Environmental Defense Fund. She manages projects on San Francisco Bay-Delta water and sediment quality, agricultural drainwater, trace element contamination of wetland and riverine habitats, and developing economic incentives for pollution control. Her recent work includes the publication of *Plowing New Ground*, a study that shows the feasibility and advantages of using economic incentives to control agricultural pollution, and the development of ecological indicators for the San Francisco Bay-Delta-River System. She received her Ph.D. from U.C. Berkeley in Agricultural and Environmental Chemistry.

Other scientists for whom biographical information was not available will be present during the ERPP Scientific Review Panel. Following is a list of all Technical Advisors expected to attend the Panel, grouped by area of expertise.

Estuarine Processes

Bruce Herboldt, EPA
Bill Bennet, U.C. Davis

Fisheries -- Anadromous

Chuck Hanson, State Water Contractors
Dave Vogel
Marty Kjeldson, FWS

Fisheries -- Resident

Randy Baxter, DFG
Larry Brown, USBR

Historical Conditions

Peter Vorster, Bay Institute

Hydrodynamic Processes

Jon Burau, USGS
Dave Schoellhamer, USGS

Hydrology and Fluvial Geomorphology

Mark Cocke, NRCS
Vernon Finney, NRCS

Invertebrates

Dick Daniel, CALFED

Levee Restoration

Curt Schmutte, DWR

Marsh Processes

Brenda Grewell, DWR
Chris Enright, DWR

Rice Production

Bob Herkert, California Rice Industry
Association

Riparian Systems

Diana Jacobs, State Lands Commission

Soils

Robert Griffith, USDA Forest Service

Upper Watershed

Serge Birk, Central Valley Project Water
Users Association

Water Management

Jim Snow, DWR
Chet Bowling, USBR

Water Quality - Contaminants

Bruce Thompson, SFEI
Elaine Archibald, CUWA

Water Quality - Conventional

Terry Young, EDF
Leo Winternitz, DWR

Wildlife

Frank Wernette, DFG

Zooplankton and Phytoplankton Processes

James Cloern, USGS
Doug Ball, USBR

