



2 0 0 0

**OCTOBER 3-5, 2000**

**SACRAMENTO CONVENTION CENTER  
SACRAMENTO, CALIFORNIA**

*<http://www.iep.water.ca.gov/calfed/sciconf/>*

# CALFED BAY-DELTA SCIENCE

## DELTA HYDRODYNAMICS

*Chair: Jon Burau, U.S. Geological Survey*

This session will provide a forum for information about circulation, mixing and transport within the Bay, Delta, and watershed. The emphasis will be on ecosystem and water quality responses to natural and anthropogenic sources of hydrodynamic variability. Topics will include the impact on transport processes from natural sources of variability, such as climate and hydrologic influences, as well as anthropogenic sources of variability such as reservoir releases, pumping, within Delta consumptive use, gate operation, barriers, and levee failures.

## DRINKING WATER QUALITY

*Chair: Elaine Archibald, Consultant*

This session will focus on recent research on organic carbon and other constituents of concern to drinking water quality. The interaction between CALFED's ecosystem restoration program and Delta drinking water quality will be explored.

## ORGANIC CARBON AND LOWER TROPHIC LEVEL PROCESSES

*Chairs: Jim Cloern, U.S. Geological Survey and Tim Hollibaugh, University of Georgia*

This session will be a forum for new information about the ecosystem functions that support biological production at the base of the food web in the Bay, Delta and watershed. Topics will include studies to characterize the sources, quality, form, and consumption of organic matter, focusing on understanding how the ecosystem supports the production of animal mass and how related ecosystem functions change in response to natural and human sources of variability.

## FLUVIAL PROCESSES

*Chair: Matt Kondolf, U.C. Berkeley*

This session highlights efforts to develop and implement sustainable aquatic and riparian ecosystem restoration in rivers tributary to the San Francisco Estuary and Sacramento-San Joaquin system. The emphasis is on strategies to preserve and restore fluvial processes (which, in turn will maintain fluvial forms). Topics will include pilot projects to restore active inundation of floodplains and modelling of floodplain inundation, design issues in restoration of dynamic river processes (including sediment transport) below dams, post-project evaluation of restoration projects, insights for future restoration planning gleaned from these evaluations, and prioritization of riverine restoration projects based on analysis of factors limiting salmon populations.

## EFFECTS OF NONNATIVE INVASIVE SPECIES

*Chair: Kim Webb*

*U.S. Fish and Wildlife Service*

The focus of this session will be scientific investigations of the effects of terrestrial and aquatic nonnative invasive species on the native ecosystems and species of the San Francisco Bay-Delta and associated watersheds.

## EFFECTS OF CONTAMINANTS AND OTHER CHEMICAL STRESSORS

*Chair: Valerie Connor, Central Valley Regional Water Quality Control Board*

This session will highlight new information and potential future research on the effect of contaminants on species of the San Francisco Bay-Delta and associated watersheds. Presentations may include results on the effects of specific stressors or recommendations for future focused research.

# SCIENCE CONFERENCE THEMES

## LEVEE SYSTEM INTEGRITY

*Chair: Lauren Hastings, CALFED*

This session will emphasize the latest understanding of factors affecting levee stability and potential measures to prevent catastrophic breaching of Delta levees. Presentations may include factors such as seismic risk, subsidence, channel dredging, and adjacent island flooding, as well as technical aspects of integrating levee maintenance and habitat restoration.

## SALMONIDS

*Chair: Randy Brown*

*California Department of Water Resources*  
Establishing healthy and sustainable runs of the four Central Valley chinook salmon races and steelhead will be among the key determinants used to evaluate the success of CALFED's restoration program. The speakers will share the results of investigations that increase our understanding of life history strategies and the impacts of natural and cultural factors on salmonid distribution and abundance.

## SPECIES OF SPECIAL CONCERN

*Chairs: Bill Bennett, U.C. Davis  
and Peter Stine, U.S. Geological Survey*

This session will spotlight new findings on the population and community ecology of aquatic and terrestrial species of public concern. Presentations will encompass species currently protected under the Endangered Species Act and those targeted for restoration, including species of commercial, recreational, and aesthetic interest to society.

## TIDAL WETLAND PROCESSES

*Chair: Larry Brown*

*U.S. Geological Survey*

This session will highlight new results regarding ecological functions of tidal wetlands in San Francisco Bay and the Delta. Topics will range from physical processes, such as sediment dynamics, that have implications for long-term sustainability of tidal wetlands, to interspecific interactions in tidal wetlands, including adjacent shallow-water habitat.

## DIVERSION EFFECTS ON FISHES AND ENVIRONMENTAL WATER ACCOUNT

*Chairs: Bruce Herbold, U.S. Environmental Protection Agency and Pete Rhoads, Metropolitan Water District*

This session will highlight the biological utility of short-term changes in flows, diversions, and barrier operations to better aid the recovery of fish populations. Areas of focus include opportunities and limitations on operational changes, the data upon which implementation of such actions should depend, and potential measurements of the success of such actions as an aid to adaptive management.

## FISH FACILITIES AND FISH SCREENING

*Chair: Dan Odenweller, California Department of Fish and Game, and John Andrew, California Department of Water Resources*

Since the passage of the CVPIA in 1992, several CALFED agencies have funded new fish protection facilities, primarily screens, in the Central Valley, Suisun Marsh, and Delta. As we enter the implementation phase of CALFED, this session will examine our current scientific basis for embarking on an ambitious and unprecedented agenda for constructing and operating fish facilities.

## FIRST ANNOUNCEMENT AND CALL FOR ABSTRACTS

The CALFED Bay-Delta Science Conference is a forum for presenting scientific information and ideas relevant to CALFED's goals and objectives in the San Francisco Bay, Delta, and watershed pertaining to ecosystem restoration, levee system integrity, and water quality.

The conference program will feature a mix of plenary and contributed talks and poster presentations on the topical themes listed inside and on other relevant and timely subjects. The speakers will be scientists and engineers conducting technical studies that address CALFED topics of concern, regardless of funding source.

The primary goal of the conference is to make new information (results, models, syntheses) available to the broad community of scientists, engineers, and managers working on CALFED-related issues.

---

### A FORUM FOR SCIENTIFIC INFORMATION AND IDEAS RELEVANT TO CALFED GOALS AND OBJECTIVES

---

#### REGISTRATIONS AND ABSTRACTS TO:

<http://www.iep.water.ca.gov/calfed/sciconf/>

For updates, please check the website. A brochure with program details will be mailed in early August.

#### QUESTIONS ON TECHNICAL PROGRAM:

Bill Bennett

U.S. Geologist

sbennett@monitor.net

Larry Brown

U.S. Geological Survey

lrbrown@usgs.gov

#### REGISTRATION AND OTHER QUESTIONS:

Heather Bowman

San Francisco Estuary Project

510.622.2465

#### GUIDELINES FOR ABSTRACTS

All presenters must submit an abstract (300-word limit). Please include the appropriate theme, any audio-visual needs, and your preference for an oral or poster presentation. Depending on the number and content of abstracts submitted, Program Chairs may move some of the requested oral presentations into the poster session and vice versa. Presenters will be notified of acceptance in mid-July 2000.

#### ORAL PRESENTATIONS

The oral presentations will focus on new findings, models, and syntheses from previous and ongoing studies relevant to CALFED technical issues rather than on project or program descriptions and summaries. If requests for oral presentations exceed the available time slots, the Program Committee will select papers on the basis of the technical merit of the abstracts, including relevance of the topic, soundness of the approach, and importance of the findings. For that reason, abstracts should provide a clear description of the results and their significance. Abstracts that clearly state the relevance of the research to CALFED technical issues will be given preference. Such statements should also be part of the oral presentation.

#### POSTER PRESENTATIONS

The poster session will be an important part of the Science Conference. Posters will be displayed throughout the conference and will be featured during a social session on the afternoon of the second day of the conference to encourage open discussion between the presenters and conference attendees. The posters should address one or more of the topical themes, but may include project or program summaries relevant to CALFED issues. Presenters should indicate the theme most pertinent to the subject of the poster. Posters will be arranged by theme.

#### STUDENT PRESENTATIONS

An award (reimbursement of registration fee) will be given for the best student presentation during the conference.

**DEADLINE: FRIDAY, JUNE 23, 2000**  
**LATE ABSTRACTS WILL NOT BE ACCEPTED**