



DELTA STEWARDSHIP COUNCIL
DELTA SCIENCE PROGRAM



CENTER FOR AQUATIC
BIOLOGY & AQUACULTURE
UC DAVIS



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UC Davis and the **Delta Stewardship Council** Present

New Approaches for Responding to Climate Change in the San Francisco Bay-Delta

A Science Seminar
Free and open to the public



Wednesday, May 6, 2015
University of California Davis
Activities & Recreation Center
Ballroom A
9:00 a.m. – 5:00 p.m.

Overview

Although climate change is one of many threats facing the San Francisco Bay-Delta region, it has the potential to dramatically alter ecosystem health and function on a vast scale. Among the challenges facing resource managers is to understand what the specific impacts will be and what the options are for managing the mitigation of those impacts. A range of strategies are under consideration for mitigating the impacts of sea level rise, changes in watershed inputs and changes in temperature, salinity and sediment loading. This process requires understanding the expected magnitude of change as well as the responses of different habitats to those changes.

The goals of the seminar include updating current understanding of climate impacts based on the recent downscaled projections and information regarding the vulnerability and resilience of both natural and human environments. The most current approaches for climate adaptation and mitigation in response to climate related changes will be discussed. The overall goal is to synthesize ongoing efforts in order to facilitate efforts to develop a broader vision for the Bay-Delta ecosystem under future climate scenarios.

AGENDA

- 9:00 a.m. **Welcome and Introduction**
Peter Goodwin, Delta Stewardship Council's Delta Science Program
Edwin Grosholz, University of California, Davis
- 9:10 a.m. **Climate change impacts on the Bay-Delta Ecosystem**
Jim Cloern, U.S. Geological Survey
- 9:35 a.m. **Projecting inundation in San Francisco Bay: Sea level rise and tides**
Mark Stacey, University of California, Berkeley
- 10:00 a.m. **Limitations of vertical marsh accretion rate as determined by suspended sediment concentration and sea-level rise**
Jim Morris, University of South Carolina
- 10:25 a.m. **Break**
- 10:45 a.m. **Carbon sequestration in natural and restored tidal wetlands in San Francisco Bay**
John Callaway, University of San Francisco
- 11:10 a.m. **The Baylands and climate change: What we can do?**
Letitia Grenier, San Francisco Estuary Institute (SFEI)
- 11:35 a.m. **Update on SF Bay Living Shorelines and other Climate Adaptation pilot projects in SF Bay**
Matt Gerhart, CA State Coastal Conservancy
- 12:00 p.m. **Lunch**
- 1:15 p.m. **Experiments with nature-based adaptation to increase the resiliency of social-ecological systems in the San Francisco Bay Estuary**
Jeremy Lowe, Environmental Science Associates/SFEI
- 1:40 p.m. **Landscape-scale planning for ecological resilience in the Delta**
Robin Grossinger, San Francisco Estuary Institute (SFEI)
- 2:05 p.m. **Evolving views of permitting requirements for large scale shoreline modification projects**
Brad McCrea, San Francisco Bay Conservation and Development Commission
- 2:30 p.m. **Break**
- 2:45 p.m. **Strategies for funding ecosystem restoration to mitigate climate change**
Sam Schuchat, CA State Coastal Conservancy
- 3:10 p.m. **Panel Discussion**
All participants
- 4:00 p.m. **Conclusions and wrap up**
Edwin Grosholz, University of California, Davis