



## ***Will They Sink or Swim? -- A Workshop on Management, Monitoring, and Modeling of California's Estuarine Marshes under Sea-level Rise***

*Sponsored by:*

San Francisco Bay Joint Venture, USGS California Water Science Center  
National Estuarine Research Reserves'  
Coastal Training Program - San Francisco Bay and Elkhorn Slough

September 15, 2011

1-5 p.m.

(optional lunch 12-1 on request)

CSU East Bay – Oakland Center

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### **Goal**

To determine the current status of marsh sustainability modeling under sea-level rise for California's estuaries.

### **Questions to be addressed**

- 1) What models are currently available to predict marsh sustainability under sea-level rise ?
- 2) Under what scales and in what particular settings should these models be applied?
- 3) What are the strengths and weaknesses of each model?
- 4) What types of monitoring and measurements are required to adequately model marsh sustainability in California's estuaries?
- 5) How can we best work together to create a white paper that builds on the outcomes of this workshop?

### **Outcomes**

- 1) Improve communication among all those working on problems related to sea-level rise and marsh sustainability in California's estuarine marshes.
- 2) Begin an evaluation process of models and model inputs currently being used to study the impact of sea-level rise on marsh sustainability.
- 3) Outline the first steps for developing a white paper on the status of marsh sustainability models, monitoring protocols, and management needs in California's estuaries in the face of sea-level rise.

## ~ Agenda ~

12:00 – 1:00      Optional Informal Lunch Gathering  
Catered, organic feast

1:00                    **Welcome & Introductions**

Grey Hayes  
*Coastal Training Program*

Judith Drexler  
*USGS California Water Science Center*

1:20                    **Managers Needs**

***Presentations -***  
*Management needs with respect to understanding the effects of sea-level rise on their projects*

Christina Sloop  
*San Francisco*  
*Bay Joint Venture*

Laura Valoppi  
*USGS*  
*South Bay Salt Ponds*

Matt Gerhart  
*California*  
*Coastal Conservancy*

***Moderated Group Discussion***

2:25                    **Marsh Sustainability Models**

***Presentations -***  
*Brief model descriptions and strengths and weaknesses*

SLAMM

Eric Van Dyke  
*Elkhorn Slough National Estuarine Research Reserve*

WARMER

Kathleen Swanson  
*USGS CAWSC*

Marsh-98

Julian Wood  
and Sam Veloz  
*PRBO Conservation Science*

***Moderated Group Discussion***

*Agenda, continued*

3:30 – 4:30

**Model Inputs**

Dating and characteristics of peat/sediments	Judith Drexler <i>USGS CAWSC</i>
Plant productivity (decomposition) and its relationship with elevation	Thomas Parker <i>SFSU</i>
Suspended sediment, sedimentation and porosity	Kathleen Swanson <i>USGS CAWSC</i>
Elevation measurements/DEMs	Eric Van Dyke <i>ESNERR</i>
Wildlife habitat metrics	Sam Veloz <i>PRBO Conservation Science</i>
Tidal extremes and tidal prism changes	Karen Thorne <i>USGS Western Ecological Research Center</i>
Sea level rise predictions	Patrick Barnard <i>USGS Pacific Coastal and Marine Science Center</i>

***Moderated Group Discussion***

4:30

Next steps                      Judith Drexler  
**-Group discussion-**        *USGS CAWSC*

5:00

Adjourn



*-This workshop is by invitation only-*



*For more information, please contact:  
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