Eye on the Waterline:
Sea Level Change and the California Coast –
Practical Tools for Mitigation and Adaptation Planning

Moderator/Session Organizer:

Barb Kinison Brown, Environmental Planner and Project Manager with PMC

Session Abstract:

Sea level rise is one of the most publicized and controversial predicted impacts of global warming. Although most climate scientists agree that it is a consequence of global warming, there is controversy over how much, how soon and just how to deal with it.

It is critical that California planners, in particular, understand and are prepared for sea level rise. California has 1,100 miles of coastline that provides a wealth of economic, recreational and natural resources. The California coast is home to over 70% of the State's population and its four largest cities. It also holds some of the most unique and endangered ecosystems in the world. California's water supply and coastal resources are particularly vulnerable to sea level rise and the entire State could suffer devastating consequences if adaptive actions aren't taken.

This century in California, sea level is projected to rise by as much as 55 inches. A rise of this magnitude would cause massive flooding, severe erosion, loss of homes and habitat, salt water inundation and damage to water systems.

Last November, California Governor Arnold Schwarzenegger signed a precedent-setting initiative, Executive Order S-13-0, to address the effects of global warming. In a first-of-its-kind executive directive, the Governor ordered the State to begin taking immediate action to mitigate the impending damage to State resources caused by climate change and impacts from sea level rise. "Given the serious threat of sea level rise to California's water supply, population and our economy, it's critically important that we make sure the State is prepared," Schwarzenegger said.

This session will examine the scientific and political status of sea level rise in California and provide planners with tools for dealing with sea level rise, both in the short- and long-term, including:

- Means of assessing sea level changes
- Methodologies for identifying impacts and implications
- Strategies for mitigation
- Planning for long-term adaptation

Both coastal and inland planners will come out of this session better prepared for the critical consequences of global warming.

Session Speakers:

Steve Crooks with Philip Williams Associates

Steve is a Senior Associate with PWA and coordinates their Climate Change Services. He has PhD in coastal geomorphology from the University of Reading in the UK. For the five years following his Ph.D. Steve worked with climate change scientists and policy analysts at the University of East Anglia to develop approaches for climate change adaptation in coastal areas. Steve moved to California in 2002 and leads PWA projects on climate change adaptation, carbon sequestration and wetland restoration.

Abe Doherty with the California Ocean Protection Council

Abe is staff to the California Ocean Protection Council, which is leading the development of the state adaptation strategy regarding ocean and coastal resources. The OPC is providing funding and coordination to complete a National Academy of Sciences panel on West Coast sea-level rise projections. Through his position as Climate Change Coordinator for the California Coastal Conservancy, Abe has developed policies and project selection criteria to guide the state's decision-making regarding funding coastal projects, to ensure that proposed projects address vulnerability to sea-level rise and other climate change impacts. Abe's experience includes working for the San Francisco Bay Area Conservancy, Coastal Commission, and working on environmental impact analyses and hydrogeologic studies as an environmental consultant and research diver.

Leslie Lacko with the San Francisco Bay Conservation and Development Commission

Leslie has a Bachelor of Science degree in Conservation and Resource Studies, with a minor in Forestry, and a Master of Science degree in Environmental Science, Policy and Management, both from the University of California at Berkeley. She is a Senior Planner at the San Francisco BCDC where she works on climate change and is the lead author of *Living with a Rising Bay: Vulnerability and Adaptation in San Francisco Bay and on the Shoreline*. She presented her work at the World Oceans Conference 2006 and at Coastal Zone 2007 and has represented the Commission on the Scenarios Development Committee for the California Climate Action Team Report to the Governor and on the San Francisco Bay Area Wetlands Restoration Program Design Review Group. Prior to joining BCDC in 1999, she interned with the State Coastal Conservancy and California Coastal Commission.

Pat Angell, Associate Principal and head of the Environmental Services Group at PMC

Pat is a project director and manager and technical analyst for a variety of projects. His experience includes establishing environmental review divisions for cities, coordination and facilitation of large-scale private and public projects, preparing urban land use and growth analysis, recreation and visual resource studies, public services assessment, transportation and circulation studies, and cultural resource analysis. He has also been involved in the preparation of several CEQA and NEPA documents and technical studies and has over 16 years of environmental documentation preparation experience. Over the last three years Pat has worked on eight General Plan Updates and associated EIRs that have addressed climate change and the potential environmental effects of climate change.