

CALFED Brown Bag Seminar Series Presents



What Does It Take For A Regulated Central Valley River To Have Ecological Functionality?

October 14, 2008
12 noon – 1 p.m.
CALFED Bay-Delta Program
650 Capitol Mall, 5th Floor
Sacramento

Gregory B. Pasternack
Department of Land, Air,
and Water Resources
UC Davis

Efforts to rehabilitate regulated rivers in California's Central Valley have generally focused on empirical channel design, ad hoc gravel augmentation or re-regulated flow releases. Though mindful of some scientific concepts, each of these paradigms has failed to include process-based predictive tools to guide design and insure that conceived of ecological benefits will actually result. Instead of pre-supposing which of these approaches should be used or in what combination, it is possible to identify the key environmental processes required for a regulated Central Valley river to be ecologically functional. Based on a decade of research on several streams, it is now evident that many of those processes are related to persistent channel non-uniformity at multiple spatial scales. Full-scale manipulative river-rehabilitation experiments on the Mokelumne and Trinity Rivers, as well as natural floods on the highly dynamic Yuba River, have confirmed the findings of modeling studies and the importance of channel non-uniformity. As a result, it is now possible to use models to predict the hydrogeomorphic and ecological outcomes of design alternatives for proposed projects. Those interested in this peer-reviewed, process-based, comprehensive framework for river rehabilitation in the Central Valley are encouraged to attend.

An educational series dedicated to ideas for California's Delta

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