

## **Special Presentation – Stream Mitigation Banking**

## Compensatory Mitigation for Streams Under the Clean Water Act: Reassessing Science and Redirecting Policy

## Martin W. Doyle and F. Douglas Shields

## February 27, 2014

1:00pm – 2:30pm Byron Sher Auditorium Cal EPA Building 1001 I Street, Sacramento, CA 95814 Webcast: <u>http://www.calepa.ca.gov/broadcast/</u>

The Water Board Training Academy College of Storm Water is hosting a special presentation on Stream Mitigation Banking by Martin W. Doyle (Duke University) and F. Douglas Shields (CBEC, and previously with USDA Sediment Laboratory). Both have recently published a paper in JAWRA titled, *Compensatory Mitigation for Streams Under the Clean Water Act: Reassessing Science and Redirecting Policy.* 

ABSTRACT: Current stream restoration science is not adequate to assume high rates of success in recovering ecosystem functional integrity. The physical scale of most stream restoration projects is insufficient because watershed land use controls ambient water quality and hydrology, and land use surrounding many restoration projects at the time of their construction, or in the future, do not provide sufficient conditions for functional integrity recovery. Reach scale channel restoration or modification has limited benefits within the broader landscape context. Physical habitat variables are often the basis for indicating success, but are now increasingly seen as poor surrogates for actual biological function; the assumption "if you build it they will come" lacks support of empirical studies. If stream restoration is to play a continued role in compensatory mitigation under the United States Clean Water Act, then significant policy changes are needed to adapt to the limitations of restoration science and the social environment under which most projects are constructed. When used for compensatory mitigation, stream restoration should be held to effectiveness standards for actual and measurable physical, chemical, or biological functional improvement. To achieve improved mitigation results, greater flexibility may be required for the location and funding of restoration projects, the size of projects, and the restoration process itself.

For questions, please contact Annalisa Kihara (Annalisa.kihara@waterboards.ca.gov)