

Streambank Stabilization and Erosion Control

2-day Workshop (6 CECs)

July 27 & 28, 8:00 a.m.—5:00 p.m.

Orange County Public Works/HGO Osborne Building
300 N. Flower Street, Santa Ana CA 92703
Basement Conference Room B-10

July 27

Fluvial Geomorphology Fundamentals—Definitions and basic concepts, channel forming discharge, channel patterns, Lane's relationship and factors influencing river behavior, channel stability concepts, river mechanics and stream evolution; local vs. systematic problems, effects of land use/urbanization/channel modifications, causes of bank failure, geomorphologic assessment and field reconnaissance

Stability and Scour Concepts—Bankfull, dominant and channel forming discharges, scour components, long term degradation, general scour, armoring; Bend scour, bed forms, channel incisement, total scour, stable channel geometry, plan form design, computer aided channel design

July 28

Streambank Protection Design – Bioengineering methods, dikes, vanes; Bendway weirs, riprap, etc.

Bank Stabilization and Grade Control – Need for grade control, methods/types, spacing, impacts

How to Choose a Streambank Protection Method – Levels of protection, economics, durability, risk of failure, constraints, location, determining design Q, hydraulic models available

Toe Protection Design in Bank Stabilization Projects – Generalizations, techniques to prevent toe scour, headcuts and knickpoints, etc.

COURSE FEES

\$395—FMA Members

\$495—Non-Members

Note to non-members: \$45 FMA membership fee can be included with your registration to receive the discounted rate.

NO LAPTOPS REQUIRED.

INSTRUCTOR: Dr. David Williams, PE, Ph.D., P.E., P.H., CPESC, CFM, D.WRE is a Fellow of the American Society of Civil Engineers, a Professional Hydrologist and a Certified Professional in Erosion and Sediment Control (CPESC). He has written the new HEC-6 User Manual for the U.S. Corps of Engineers Hydrologic Engineering Center, performed HEC-6 and local scour analysis of pipeline crossings in Arizona and New Mexico, headed the Keene Ranch groundwater modeling study and the Nile River sedimentation evaluations. Dr. Williams is a nationally recognized expert in sedimentation engineering and in developing innovative solutions to difficult hydraulic and hydrologic design problems in rivers and estuaries. Dr. Williams has been a frequent short course instructor for ASCE, Federal and State Agencies for computer training workshops and has taught short courses on channel bed scour for toe protection design, sediment transport, bridge scour and streambank protection.

REGISTRATION DEADLINE: July 17, 5:00 p.m. Register by e-mailing the information below to admin@floodplain.org, or by fax to 760-440-0792, or by mailing to FMA, P.O. Box 712080, Santee, CA 92072-2080. Cancellation Policy: \$50 fee until July 17, full course fee is applied after July 17.

Registrant Information

Name _____
Are you a CFM? (Certified Floodplain Manager) Yes/No (Circle one) _____
(CFM's receive credit toward their certification from ASFPM)
Company _____
Street Address: _____
City, State, Zip: _____
Phone: _____
E-mail: _____
TOTAL REG. FEE: _____

For checks, make payable to "FMA"; Use Visa, MC, or Amex only

Name on Card: _____
Credit Card Number: _____
Exp. Date: _____
Billing Zip Code: _____
CSC Code (3 or 4 digit number on back of card): _____ (required)