



# Martin J. Teal, P.E., P.H., D.WRE

## *Vice President*



### **Registration**

*Diplomate, American Academy of  
Water Resource Engineering*

*Professional Civil Engineer  
California No. C47903  
Arizona No. 28288  
Nevada No. 16167  
Hawaii No. 11405*

*Professional Hydrologist  
No. 1122, American  
Institute of Hydrology*

### **Education**

*M.S. (Civil and Environmental  
Engineering – Hydraulics)  
University of Iowa*

*B.S. (Civil Engineering)  
University of California, Berkeley*

### **Professional Societies**

*American Society of Civil  
Engineers*

*United States Society of Dams*

*Association of State Floodplain  
Managers*

*Floodplain Management  
Association*

*International Association for  
Hydraulic Engineering and  
Research*

**Martin J. Teal, P.E., P.H., D.WRE** has over eighteen years experience in water resources engineering and currently leads WEST's San Diego, and Tempe offices. Mr. Teal is currently managing a 3 year IDIQ Project with USAED New Orleans District for Coastal and Hydraulic Design and Related services with the Limits of the New Orleans District. Projects in progress include dam failure inundation modeling on the Island of Kauai and a flood hazard study for U.S. Army Forces in Korea. Recently, Mr. Teal was Project Manager for watershed studies (hydrology, hydraulics, and sediment production and transport) for three basins within MCB Camp Pendleton, CA, a watershed study of the Santa Margarita River basin for the U.S. Army Corps of Engineers (USACE), Los Angeles District, and a geomorphic study of 500 miles of the Sheyenne River for the USACE, St. Paul District. Other recent studies which Mr. Teal has managed and performed technical analyses include three flooding and sedimentation studies of the Missouri River for the USACE, Omaha District, a two-dimensional hydrodynamic and sediment model of Humboldt Bay for the California Department of Transportation, and the Tres Rios Hydraulic and Sedimentation Study in Phoenix, Arizona, for the USACE, Los Angeles District. Many of these studies had a large GIS component where geographic data was utilized for analyses, as well as for pre- and post-processing of data for hydraulic and / or hydrologic computer models.

Mr. Teal has also managed hydrologic and hydraulic studies in eastern Arkansas for the USACE, Memphis District, a flood control study for USACE, New Orleans District, an interim flood protection study for the Tia Juana Valley County Water District, and several dam failure inundation studies for the San Diego County Water Authority. He has worked on scour analyses for pipeline crossings for the El Paso Natural Gas Company, and bridge scour analyses for the Departments of Transportation in California, Oregon, Washington, and Arizona. He has performed flood frequency analyses for several projects and designed bank protection for the International Wastewater Treatment Plant along the Tijuana River. Mr. Teal had the lead role in developing RIPRAP Design System, WEST's streambank protection software based on Corps of Engineers, Federal Highway Administration, and other standards, and has developed software and training for the U.S. Forest Service.

Mr. Teal has used numerical models throughout his career and is a lead instructor for the HEC-RAS and HEC-HMS courses presented by WEST for a variety of clients. He has taught both these courses in both Spanish and English. His instructional experience also includes teaching HEC-6, Riprap Design, WinXSPRO, Hydraulic Design, and Basic Hydrology & Hydraulics.

Prior to joining WEST, Mr. Teal worked for the Iowa Institute of Hydraulic Research (IIHR), where he performed a study for the U.S. Geological Survey on the accuracy of estimating discharge for ice-affected streamflow. His experience also includes over three years with the USACE, Sacramento District, and work in Chile (South America) with a large engineering consulting firm. His work in Chile was performed in Spanish (in which he is fluent).

While with the Corps of Engineers, Mr. Teal performed a variety of tasks related to flood control, including design of channels, spillways, outlet works, stilling basins and streambank protection. His extensive computer use included one- and two- dimensional numerical modeling.