

## WSPG HYDRAULIC MODELING TRAINING

Mr. Delgado, CEO of Hydrologic Science Inc., offers WSPG Software Training to Public Agencies and Private Companies. A WSPG Power Point Training Presentation is available to interested Engineering Firms and Public Agencies. The training covers the basic principles to perform the Water Surface Profile Gradient Software (WSPG) for Storm Drain Pipelines and Channels.

In addition, Hydrology Software Training is also available covering most of the counties in Southern California.

## EXPERIENCE

Consulting Civil Engineer, located in Riverside County, CA, his experience includes working for the L.A. County Flood Control District as a Senior Engineer, in the Program Management Division, Floodways and Special Studies Section; and Design Division, Drainage Section No. 1. He also worked for Ventura County Flood Control as a Civil Engineer III for the Design and Construction Division, and Orange County Flood Control District as a Civil Engineer in the Flood Programs Section. In addition, his work experience includes working as Associate Civil Engineer for the Coachella Valley Water District in the Sanitation and Waste Water Treatment Division. He also worked as a Chief Engineer, managing the Engineering Department of the Indian Wells Valley Water District for Domestic Water and Ground Water applications.

In addition to the Public Sector, Mr. Delgado worked for local and international engineering firms, including Parsons, Engineering Science, ES2, C.T. Main and BAS, where he worked as a Principal Engineer on several engineering disciplines including Mining, Petrochemical, Environmental, Landfills, Cogeneration Power Plants and Solar/Wind Energy Generation projects.

His experience includes the Planning, Design, and Construction Management for Water Resources projects including Flood Control and Storm Water Projects, Waste Water Treatment, and Domestic Water & Distribution Systems. Engineering experience includes watershed master planning, hydrology analysis, hydraulic routing, design and construction of hydraulic structures, floodplain and floodways studies, hydrogeology and underground water recharge systems, and bridge and culvert hydraulic design.

Over 30 years experience in the hydrology analysis and hydraulic design with software applications including HEC-RAS series, Flo-2D, AES, WSPG and most of the hydrology software used by Flood Control Counties in Southern California. Conducted technical studies, including CLOMRS and LOMARS, for the Federal Emergency Management Agency (FEMA). Performed channel inspection and developed a maintenance programs, including environmental permit requirements and mitigation, in order to meet USA Corp of Engineers Requirements.

Managed and participated in the development of WSPG software improvements. His experience with WSPG and WSPGW includes the analysis and design of rectangular and trapezoidal channels, storm drain and spillway designs, transition and junction structure analysis, open channel and floodplain hydraulics, bridge and culvert design and analysis. Presented WSPG software training and provided engineering support to private firms and public agencies including Ventura and San Bernardino Counties Flood Control Districts.

## EDUCATION

Mr. Delgado's education and training includes the following:

- Systems Engineering; University of California, Riverside, 1998  
Emphasis in Contract & Construction Management; (GPA= 3.83)
- Civil Engineering; University of Puerto Rico, 1982  
Emphasis in Design, Hydraulics, and Hydrology.
- Associate Degree; University of Puerto Rico, 1977  
Associate Degree in Science, (Mathematics, and Physics)

## PROFESSIONAL MEMBERSHIPS:

- American Society of Civil Engineers, (Nat., L.A. & Riv./S.B. Chapters) 1988-Present.
- Flood Management Association, 2005-Present.
- Colorado River Basin Section (CORBS 1995-2002).
- Consulting Engineers Association of California (1990).
- Building Industry Association (1988-1989).
- Society of Hispanic Engineers (1986-1988).

## PUBLICATIONS:

- Standard Plans & Drafting Standards, Indian Wells Valley Water District, 2003.
- Standard Plans & Drafting Standards, L.A.C.F.C.D. Dept. of Public Works Manual, 1988.
- L.A. World Port Standard Design Drawings, 1993.
- Hydraulics-Engineering Guidelines, Parsons Engineering Manual, 1990.
- Designed Engineering and Drafting Equipment for Patent Applications, 1985.
- Computer Programs, Structural Analysis Book, University of Puerto Rico, 1981.

## AWARDS:

- ASCE, Civil Engineer of the Year Award, 2010. Private Sector, Riverside & San Bernardino Counties, CA.
- ASCE, Civil Engineer Project Improvement of the Year Award. Recycled Water Pipeline & Bio-Filtration System, Lake Arrowhead Community Service District, 2009.
- ASCE, Outstanding Civil Engineer Project of the Year Award. San Bernardino County Flood Control, 2005
- Letter of Recognition, Systems Engineering Honor Certificate, Dean of University of California, Riverside, 1998.
- Letter of Recognition & Certificate of Achievement, President of Parsons Corporation, 1991 & 1992 (Respectively).
- Plaque for Channel Inspection from Carl Blume, Division Engineer, L. A. County Flood Control District, 1983.
- Letter of Commendation from Howard Haile, Chief Engineer, L. A. County Flood Control District 1982.
- Honor Certificates, University of Puerto Rico, 1977 & 1982.
- 1975 1<sup>st</sup> Place Engineering-Science, air, Bridge Hydraulics & Design.