

Imad A. Hannoun

President, Water Quality Solutions, Inc.

Years of Professional Experience: 26

Education

Ph.D. Civil Engineering - California Institute of Technology, Pasadena, California, 1987

M.S. Civil Engineering - California Institute of Technology, Pasadena, California, 1983

B.E. Civil Engineering - American University of Beirut, Lebanon, 1982

Professional Affiliations

Registered Professional Engineer in Pennsylvania (45818-E)

Registered Professional Engineer in NV, VA, PA, NJ, FL and 12 other states

President, California Lake Management Society (CALMS)

Director, North American Lake Management Society (NALMS), Region IX (western US),

Member American Water Works Association

Member Water Environment Federation

Member American Society of Mechanical Engineers

EXPERIENCE & QUALIFICATIONS

Dr. Hannoun has provided technical analysis for numerous projects, working with engineering firms and government agencies. Throughout his career, he has acted as project manager for over 100 water quality investigations for clients including the City of San Diego, City of Seattle, MWH, City of Los Angeles Department of Water and Power, Black & Veatch, Southern Nevada Water Authority, U.S. Navy, and the U.S. Air Force. He has authored reports and papers in the following areas of work: dispersion and mixing in rivers, reservoir hydrodynamics and water quality, computational fluid dynamics, numerical methods, open channel flow, clearwell and settling tank design, power plant cooling systems, brine and wastewater diffusers, underwater missile launch, underwater explosions, and airplane pilot ejection.

Dr. Hannoun is the author or co-author of many technical publications in refereed journals and acts as a reviewer for NALMS' Journal of Lake & Reservoir Management. He has been an invited speaker at many conferences in the USA and abroad. He has served on several research and review committees. Dr. Hannoun was the primary author of one of the first articles on CFD modeling in the water industry. He is the Chair of the NALMS 2013 annual conference, a gathering of over 500 water quality professionals and stakeholders, to be held in San Diego, CA.

Dr. Hannoun is President of Water Quality Solutions Inc. He is responsible for applying Computational Fluid Dynamics (CFD) for the analysis of flow patterns and water quality in lakes, reservoirs, and river systems. He is also responsible for modeling flow in clearwells and pump station wetwells. Dr. Hannoun has extensive experience in formulating innovative solutions for the design and analysis of wastewater diffusers that produce efficient effluent dilution. For the period 1992-2012, he was at Flow Science Incorporated where he held various positions including President from 2005 to 2012. From 1986-1992, he was a Senior Scientist at JAYCOR in San Diego, California. His duties included the development of complex hydrodynamic simulation software that was used to compute the underwater trajectories of U.S. Navy TRIDENT missiles launched from submarines, underwater explosions near submarines, and pilot ejection from aircraft.