Robert H. Abrams, PhD, PG, CHg

Senior Quantitative Hydrogeologist

Bob has over 18 years of experience in groundwater resource development, groundwater sustainability, groundwater banking, groundwater quality, and model design and evaluation. He has led projects on irrigated agriculture, providing clean and safe municipal water supplies, and source-water protection. He has worked for the California Geological Survey, the U.S. Geological Survey, Stanford University, San Francisco State University, several consulting firms, and as an independent consultant for public and private clients.

Bob received his Master's and Doctorate degrees from Stanford University. His Master's thesis focused on basin-scale simulation of groundwater, oil-field brines, and petroleum migration. Bob's doctoral dissertation focused on developing new tools for simulating solute transport coupled with the thermodynamically controlled, rate-limited geochemical reactions that lead to the formation of redox zones in contaminated aquifers. He is a Professional Geologist and Certified Hydrogeologist in the State of California.

Bob's work includes geologic interpretation and conceptualization, implementation, and evaluation of subsurface unsaturated and saturated fluid flow, solute transport, and geochemical models. He has designed and developed local-scale and regional-scale models with MODFLOW, IWFM, and other codes, including simulation of current and future land-use based water demand and the impact of climate change. He has proven experience in groundwater/surface water interactions, aquifer storage and recovery (ASR), aquifer test analysis, groundwater vulnerability assessment, the fate and transport of dissolved inorganic and organic compounds, and groundwater nitrate impacts from large-scale agricultural operations.

At **aquilogic**, Bob is working on basin-scale water budget evaluations, the effects of water projects on groundwater supply and seawater intrusion, oil-field brine migration, brackish groundwater development, issues related to the Sustainable Groundwater Management Act (SGMA) implementation, and contamination from methyl tert-butyl ether (MTBE), pesticides, and coal ash.