



Raymond Walton, Ph.D., P.E., D.WRE

Vice-President, Bellevue, WA Office Manager



Dr. Walton is a Vice President with WEST Consultants, Inc. and manages the Bellevue, Washington, Office. He has nearly 30 years of experience directing water resources studies throughout the U.S. and abroad, for a wide range of clients. He is a nationally-recognized expert in multi-dimensional modeling of surfacewater, groundwater and water quality systems.

Dr. Walton developed coupled surface water-groundwater models to simulate wetland hydrology and hydrodynamics: MODNET, for the South Florida Water Management District, and WDWBM, for the Waterways Experiment Station. He has applied these and similar models to sites throughout the United States. He is managing the scientific review of a coupled model, ISGW (linking MODFLOW and HSPF) for Tampa Bay Water in Florida. Dr. Walton has conducted river hydraulics, water quality and ecological modeling studies, including water quality modeling on the Columbia River in the Pacific Northwest, ecological modeling of the entire Missouri River, the application of FastTABS and SMS, ice and temperature studies of the Platte and Snake Rivers, and salt water intrusion studies in several eastern river estuaries. He has applied CE-QUAL-W2 to reservoirs in West Virginia, Ohio, Washington and Oregon; QUAL2E to the Okanogan River, Washington and Charles River in Boston; and MIKE11 to rivers in Florida, Oregon and California. He has studied erosion and sedimentation for various rivers and coastal areas, including the Elwha River in Washington, and has evaluated bridge scour potential at numerous sites in Washington and Oregon.

Registration

*Professional Civil Engineer
Washington No. 27111
Oregon No. 18730PE
Virginia No. 013444*

Education

*Ph.D (Hydraulics) University of Florida
M.Sc. (Engineering/Hydrology) University of Newcastle-Upon-Tyne, U.K.
B.Sc. (Mathematics) University College, London, U.K.*

Professional Societies

*American Society of Civil Engineers
Society of American Military Engineers
Oceanography Society
Tau Beta Pi*

Dr. Walton has developed and applied numerous circulation and water quality models, including a 3-D circulation model for Chesapeake Bay, a water quality model for the Key Largo National Marine Sanctuary for NOAA, a model of the Exxon Valdez spill, hydrodynamic/sediment transport models of the Lower Willamette River, OR, and Elliott Bay, WA, and models to study organotin transport in San Diego Bay and the James River, Virginia, for the Navy. He has modeled hurricane surges on the west coast of Florida, on the Georgia/Florida border and in the New York Bight area. Dr. Walton has studied receiving water impacts of effluent discharges and CSOs at locations throughout the world. He directed the modeling teams to evaluate diffuser sites and CSO impacts as part of the Boston Harbor Cleanup, evaluated the Beach Protection Programme for Sydney, Australia, simulated initial dilution for numerous ocean outfalls, and has assessed far-field impacts for outfalls in the United States, Uruguay, Colombia, Australia, and Singapore. Dr. Walton has applied groundwater flow and mass transport models throughout the United States to evaluate contaminant transport at hazardous waste sites, the effectiveness of containment caps, dewatering construction sites, and water supply. He was a member of a groundwater development and training group, and later the lead groundwater modeler for a large consulting firm. He has also been involved with power facility permitting studies, EIS preparation, basin hydrology using HSPF, and has designed and implemented numerous data collection programs.

Dr. Walton previously worked at the Hydraulics Research Station in the UK, taught at North Carolina State University, and spent 15 years with nationwide consulting engineering firms. He has written over fifty professional papers in the fields of hydraulics, environmental engineering, groundwater and surface water hydrology. He teaches HEC-RAS classes. He has worked with ASCE and ASTM committees on Environmental Software and monitoring wetlands, and reviews technical papers for several ASCE journals. He chaired ASCE's International Water Resources Conference in Seattle in August 1999 and was the Technical Chair for the 2005 ASCE/EWRI conference in Anchorage.