

Qualifications and Experience Statement

Lawrence H. Smith

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Position: Hydrologist, California District, U. S. Geological Survey (USGS)

Education:

M. S. in Applied Mathematics
North Carolina State University, 1972

B. S. in Applied Mathematics
North Carolina State University, 1970

Experience:

1983-present: Member of the hydrodynamics modeling team funded by Interagency Ecological Studies Program of the Sacramento-San Joaquin Estuary under the technical direction of Ralph T. Cheng of the USGS national research program. Primary responsibility to construct and apply computer models of circulation and mixing to questions about San Francisco Bay. Secondary responsibility to aid in design of field studies of circulation and mixing of San Francisco Bay. Incidental assignments to technical advisory committee for U. S. Environmental Protection Agency study of San Francisco Bay-Delta and as advisor to hydrodynamic modeling study of Turnagain Arm, Alaska.

1978-1983: Hydrologist, Nevada District. Member of study team which conducted a river-quality assessment of the Truckee and Carson River basins. Designed and conducted modeling workshops in which local managers and scientists ranked water-quality problems and developed model scenarios. Designed and led field studies to measure traveltime and reaeration rates in the Truckee River. Designed and constructed computer models of reservoir operation, water allocation, and streamflow routing for reaches of the Truckee and Carson Rivers.

1977: Graduate study funded by USGS in Interdisciplinary Hydrology at the University of British Columbia.

1975-1976: Staff Hydrologist, Office of Assistant Chief Hydrologist for Research and Technical Coordination, USGS headquarters, Reston, Virginia. Coordinated national research program budget and reviews of research proposals submitted to the Office of Water Research and Technology. Conducted estuarine circulation modeling research.

1972-1975: Research Hydrologist, USGS national research program, Reston, Virginia. Conducted research on circulation modeling of estuaries. Constructed computer programs for reducing and analyzing field data.

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Smith, L. H., and R. T. Cheng, 1976. Tidal Streamflow Solved by Galerkin Technique. Proceedings of 15th Coastal Engineering Conference, ASCE, v. 4, pp 3358-3376.

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*Smith, L. H., and R. T. Cheng, 1985. Tidal and Tidally-averaged Circulation Characteristics of Suisun Bay, California. AGU, EOS, v. 66, no. 51, p 1269.

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Smith, L. H., and R. T. Cheng, 1987. Tidal and Tidally Averaged Circulation Characteristics of Suisun Bay, California. *Water Resources Research*, v. 23, no. 1, pp 143-155.

Smith, L. H., 1987. A Review of Circulation and Mixing Studies of San Francisco Bay, California. USGS Open-file report 87-534.

* Abstract and oral presentation