

## **JOHN E. SEVEE**

### EDUCATION

University of Vermont - B.S. in Civil Engineering, 1971

University of Vermont - M.S. in Geotechnical Engineering, 1973

University of Southern Maine - B.A. in Physics, 1994

### PROFESSIONAL REGISTRATION

Professional Engineer - Maine, New Hampshire, Massachusetts, Florida, New Jersey, Ohio, North Carolina, South Carolina, Georgia, Connecticut, Pennsylvania, and Indiana

Certified Geologist - Maine

### AFFILIATIONS

Association of Ground Water Scientists and Engineers, National Water Well Association, Member

American Society of Civil Engineers, Member

American Geophysical Union, Member

Formerly adjunct instructor at University of Southern Maine, in Engineering, Hydrogeology, and Contaminant Fate and Transport

### EMPLOYMENT HISTORY

Currently from 1985 - Sevee & Maher Engineers, Inc. President

1985 from 1979 - E.C. Jordan Company, Portland, Maine, Manager of Earth Sciences and Geohydrologic Services

1979 from 1973 - Ardaman and Associates, Inc., Orlando, Florida, Project Geotechnical Engineer

### EXPERIENCE

Directed a variety of hydrological, geohydrological, geochemical, geotechnical and hazardous waste investigations, including CERCLA and RCRA sites. These projects routinely have involved multidisciplinary efforts of laboratory analytical services, geotechnical engineers, solid and hazardous waste engineers, geophysicists, soil boring contractors, geochemists, monitoring well and piezometer installation contractors, geologists, structural engineers, architects, planners, water resource engineers, biologists, and/or waste water engineers. Managed a department with up to 30 geophysicists, soil scientists, geologists, geohydrologists, geotechnical engineers, and a geotechnical laboratory. Worked on projects located throughout the United States, and various parts of Canada, Russia, Middle East, Africa, and South America. Project budgets have ranged in excess of \$30 million.

Typical projects in various areas of expertise include:

- responsible for field investigations and interpretation of geohydrologic data at uncontrolled hazardous waste sites where heavy metals, solvents, etchants, coal tars and other chemicals were improperly stored and disposed, including recommendations for cleanup,
- responsible for collection, review, and statistical analysis of water quality and soil quality data and assessment of environmental risk,
- use of stable isotopes to date groundwater and trace chemical plumes in groundwater,
- geochemical evaluation of natural and impacted other waters including geochemical modeling for compounds such as arsenic, mercury, and metals,
- design and construction of groundwater and soil remediation systems (including organic chemicals, such as VOCs, SVOCs, BETX; metals such as mercury), including pump and treat, in situ biodegradation, and excavation,
- investigations and remediation of chlor-alkalie facilities,
- hydrogeologic and contaminant assessments on fourteen Superfund sites, including Remediation investigations (RI) and Feasibility Studies (FS),
- groundwater resource studies requiring interpretation of the geologic setting, analysis of aquifer yield characteristics, fracture analysis, well-head protection, and saltwater intrusion,
- use and development of finite difference and finite element computer models for simulation of groundwater and chemical transport,
- investigations requiring installation of multi-level wells for groundwater flow determination and quality sampling,
- land disposal and groundwater recharge investigation involving evaluation of impacts on surface water and groundwater,
- geohydrologic and geotechnical investigations for the siting, design, and license application of solid waste landfills for mining waste, municipal wastes, hazardous wastes (including organic chemicals, such as VOCs, SVOCs, BETX; metals such as mercury), papermill wastes and ash, including negotiations and public participation during the permitting process,
- a broad variety of geotechnical projects including foundation investigations for buildings, tanks, and heavy industrial facilities, design of earthen dams and retaining walls, and slope stability,
- slope stability and dam stability analyses including seismic assessment,
- tailings pond geotechnical design and impact assessment on groundwater and surface water quality, mine dewatering analyses, injection well design, stability and settlement analyses,
- design and construction of groundwater collection systems to remediate groundwater at landfills and hazardous waste sites,

- impact assessments for oily waste disposal areas and solid waste landfills,
- negotiations with state and federal regulatory agencies and permitting assistance,
- a broad variety of geotechnical projects including foundation investigations for buildings, tanks, and heavy industrial facilities, design of earthen dams and retaining walls, and slope stability, and
- expert testimony.

#### PUBLICATIONS AND PRESENTATIONS

"Shear Strength Anisotropy in a Laminated Silt," Masters Thesis, University of Vermont, 1973.

"Silresim: A Hazardous Waste Case Study." Presented to the Management of Uncontrolled Hazardous Waste Sites Conference, November 29 - December 1, 1982, with John D. Tewhey.

"Cost-Effectiveness Studies of Ground-Water Clean-up at Hazardous Waste Sites." Presented to Conference on Ground-Water Investigations and Policy in Maine, Augusta Civic Center, 1983.

"Use of Computer Groundwater Modeling Techniques in the Design of a Monitoring Program at a Hazardous Waste Superfund Site." Presented to the Fourth National Symposium and Exposition on Aquifer Restoration and Ground Water Monitoring, May 23-25, 1984, with Ron A. Lewis.

"Groundwater Control During Construction of a Roadway Access on Uncontrolled Coal Tar Disposal Site." Presented to Eastern Regional Groundwater Conference, National Water Well Association, 1984, with Earl G. Hill.

"Economic Considerations for Siting Solid Waste Landfills." 1985 TAPPI National Convention, with Richard Saucier.

"Monitoring Wells-A Case History Anthology," Presented to the National Water Well Association Short Course on Ground Water and Unsaturated Zone Monitoring and Sampling, 1985, Portland, Maine.

"Geohydrologic Considerations of Large Wastewater Disposal Systems and High-Density Individual Systems," Presented to 1987 Annual Site Evaluators Meeting, Augusta Civic Center.

"Rehabilitation of Monitoring Wells on an Organic Chemical Spill Site." 1987 Symposium on Standards Development for Ground Water and Vadose Zone Monitoring Systems, ASTM Subcommittee D18.21, with Peter Maher.

"Sources of Groundwater Contamination," March 1988, Maine Section American Society of Civil Engineers, Maine Ground Water Issues.

"Methods and Procedures for Defining Aquifer Properties", Chapter 10 in "Practical Handbook of Ground-Water Monitoring," Editor David Nielson, Lewis Publishers, Inc., 1991.

"Subdivision Review and Residential Development," Presented to Planners and State Employees of Maine working in areas of groundwater protection; sponsored by Southern Maine Regional Planning Commission, June 1990.

“Hydrogeology and Environmental Geology of the Gray Delta Complex,” 1996, with Andrew Tolman, Katherine Bither, Fred Beck, Martha Mixon, and Tom Weddle, presentation at New England Intercollegiate Geologic Conference.

“Groundwater Behavior in the Bedrock of Maine,” in Bulletin 4, Selected papers on the Hydrogeology of Maine, Geological Society of Maine, 1996.

“An Analysis of Low-Flow Ground Water Sampling Methodology,” with Carol White and David Maher, Ground Water Monitoring Review, Spring 2000.

“Predicting the Environmental Effects from Short Paper Fiber and Biosolids Use in Manufactured Topsoil,” J. Sevee, P.E., C.G.; A.W. Thayer, C.G.; A. Duran, Ph.D.; E.R. Myers; and J.C. Brinck, November 2007.

“Effective Porosity Measurement of a Marine Clay,” submitted to ASCE Journal of Environmental Engineering.