

ANGELOS N. FINDIKAKIS

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EDUCATION

PhD, Civil Engineering, Stanford University, 1980

MSc, Water Resources Planning, Stanford University, 1974

Diploma in Civil Engineering, National Technical University of Athens, Greece, 1968

EXPERIENCE

1980-Present: Bechtel: As a **Bechtel Fellow** (since 1998), which is the highest level of recognition of technical excellence within Bechtel, advises senior management on technology developments, works towards the goals of Bechtel's Global Technical Excellence Program, performs key technical assignments, and represents Bechtel at technical events around the world.

As **Senior Principal Engineer**, Dr. Findikakis is responsible for supervising, providing expert opinion and reviewing studies on environmental hydraulics and hydrology problems, and water resources issues in support of projects from all Bechtel business lines. Over the years and progressively in positions of increasing responsibility he worked on several surface and ground water studies, including contaminant transport, environmental restoration, performance assessment, risk assessment analysis, environmental impact assessment and water resources planning, feasibility studies and remedial design for ground water contamination problems, and remedial investigations, as well as on thermal analysis.

Areas of project work and examples of expertise in the nuclear industry include: preparation of the hydrologic engineering section (Section 2.4) for the Safety Analysis Report and the hydrology part (Section 3.2) of the Environmental Report in support of the licensing of two new Nuclear Power Stations SCE&G's VC Summer Units 2 & 3, and STP Units 3 & 4; groundwater modeling studies in support of the licensing of the Vogtle Units 3 & 4, the Dominion North Anna Unit 3, and the Constellation Calvert Cliffs Unit 3; studies and review of different subjects in support of the permit application for the Yucca Mountain high level repository in Nevada, including the hydraulic and thermal rock properties and deep infiltration; evaluation and analysis of hydrologic and nuclide transport conditions in support of the performance assessment of proposed radiological waste repositories in Nebraska and Taiwan; data analysis and modeling of the thermal outfall of the Diablo Canyon Nuclear Powerplant; thermal studies for the Kori units 7 & 8 in South Korea; dispersion studies in the Schuylkill River for the Limerick Nuclear Station.

Other work includes the evaluation of flow through crack and fissures in the BART tube as part of eth BART seismic retrofit project; studies of suspended sediment transport and deposition in support of the environmental permit application for a tailings disposal outfall for the proposed Quartz Hill mine in Alaska; evaluation of flood flows through rock piles in the Morenci mine in Arizona; analysis and modeling of ground water flow and contaminant transport at several closed bases of the U.S. Navy in the Southwest; hydrologic and contaminant transport studies of various industrial facilities and landfills in California, Idaho, Connecticut, Puerto Rico, etc.; integrated study for the remediation of Lake Maracaibo in Venezuela, including field research and analysis/modeling of physical and chemical processes in the lake aimed at predicting and evaluating the impact of proposed engineered measures and management options on water

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quality in the lake; recirculation studies for plants using once-through cooling systems, aimed at analyzing and predicting the temperature distribution in the outfall and intake areas, including plants in California, Korea, Singapore and Saudi Arabia; water quality, temperature and turbidity studies for Spada Lake in Washington State; study of hydrodynamic circulation and suspended sediment distribution in Boston Harbor for the Central Artery project; thermal analysis of the fissile material storage facility in Mayak, Russia; oil spill trajectory and dispersion analysis for the proposed San Miguel oil platform off the central California coast; study of the National Water Plan of Morocco; development of a nationwide strategy for shallow ground water management as part of the Water Sector for Tunisia; assessment of the potential of gas production for energy generation at landfills in Rio de Janeiro, Belo Horizonte, Goiania, Brasilia, and Salvador in Brazil.

1981-Present: Stanford University, Department of Civil and Environmental Engineering (Consulting Professor 1996 to date; Consulting Associate Professor, 1986-96; Consulting Assistant Professor 1981-86). Teaches the class CEE265C on Water Resources Management. Conducted research in multi-dimensional numerical flow simulation, oil spill fate and transport simulation, and modeling of gas production and flow in landfills. Supervised graduate students working toward advanced degrees.

1975-79: Stanford University. As a **Research Assistant**, worked on analytical and experimental research in environmental fluid mechanics, including stratified flows and gas flow through landfills.

1972-73: Public Power Corporation of Greece. Worked as an Engineer in the final design of the Pournari Hydroelectric Project (300 MW) on Arachthos River in Greece.

1970-72: Surveyor, Nenniger & Chenevert of Montreal (Athens, Greece office). Worked as an Engineer in feasibility and engineering studies for water resources development in two major river basins in Greece.

PROFESSIONAL DATA

- Registered **Professional Engineer** (PE) in the State of California. Registered Civil Engineer in Greece
- Member of the American Society of Civil Engineers, the Sigma Xi Honorary Society, the International Association of Hydraulic Research, the American Geophysical Union.
- Current work in committees:
 - **Chair** (2006 to date) of the Geophysical Hydraulics Division of the International Association for Hydraulic Research (IAHR)
 - Member of the IAHR Standing Committee on Global Water Issues (2006 to date)
 - **Chairman** of the Working group to develop the standard ANS-2.18 of the American Nuclear Society for Evaluating Radionuclide Transport in Surface Water for Nuclear Power Sites.
- Past work in committees:
 - **Chair** (2004-06) of the Groundwater Hydraulics Section of IAHR (section member since 1997)
 - **Chairman** of the International Ground Water Symposium on "Bridging the Gap between Measurement and Modeling in Heterogeneous Media" in March 2002 in Berkeley California, sponsored by IAHR, and co-sponsored by ASCE and IAHS.
 - **Editor** of the "Ground Water" volume of the proceedings of the 1997 IAHR Congress in San Francisco.
 - **Associate Editor** of the Journal of Hydraulic Engineering (1993-96) responsible for papers on ground water and flow through porous media.
 - Several Technical Committees of the American Society of Civil Engineers (ASCE), including the Ground Water Hydrology Committee (Chair in 1999-2001), the Task Committee on

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the Verification and Validation of Ground Water Flow and Transport Models (1992-94), the Computational Hydraulics Committee of ASCE (1991-94), the Task Committee on Geographic Information Systems and Digital Mapping in Water Resources (1990-92), Technical Committee on Turbulence Models in Hydraulic Computations (1983-85), and in the ASCE Hydraulics Division Discussions Awards Committee (1983-86).

AWARDS

- Recipient of the **2000 Wesley W. Horner Award** of the American Society of Civil Engineers (ASCE) awarded annually for the best paper in environmental engineering
- Invited speaker at the 8th Stockholm Water Symposium, August 1998
- 1993 Freeman Lecture (Boston Society of Civil Engineers).
- Recipient of the following Bechtel awards: Special performance team award (1991), four outstanding technical paper awards (1986, 1989, 1998 and 1999), and eleven awards of merit.
- Recipient of the **1981 Hering Medal** (ASCE Environmental Engineering Award) for the paper "Numerical Simulation of Gas Flow in Sanitary Landfills".
- Recipient of the **1981 Straub Award**, awarded annually for the best dissertation in hydraulic engineering.

PUBLICATIONS

Author, or co-author, of 32 papers published in peer-reviewed journals

Author, or co-author, of 56 papers presented at technical conferences and published in the conference proceedings.

Publication list available upon request.