

**EXHIBIT "A"**

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## RESUME

### Joseph C. Scalmanini

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#### ***Specialization:***

Thirty-eight years of experience in ground-water development and management, and oil and gas production. Assessments of ground-water resources and implementation of ground-water basin management in various areas of California; ground-water development and management encompassing well design, construction, operation, and maintenance; ground-water monitoring as part of basin management and as part of ground-water contamination investigations; artificial ground-water recharge facilities and practices; injection of industrial waste water; utilization of brackish ground water for industrial water supply and cooling applications. Industrial design, construction and operation of secondary oil recovery systems involving water and steam processing, injection and recovery.

#### ***Professional Registration:***

Registered Civil Engineer, California, CE 28233

#### ***Academic Degrees:***

M.E. Civil Engineering, University of California, Davis, CA	1984
B.S. Mechanical Engineering, University of Santa Clara, Santa Clara, CA	1967

#### ***Professional Experience:***

Luhdorff and Scalmanini, Consulting Engineers, Woodland, CA	
President	2004 - Present
Principal Partner	1989 - 2004
Partner	1980 - 1989
University of California, Davis, Davis, CA	1973 - 1979
Associate Development Engineer	
Shell Oil Company	1967 - 1973
Mechanical and Facilities Engineer	

#### ***Representative Professional Assignments:***

- Consultant to water districts and utilities, municipalities, corporate and individual farming interests, corporate and private industry, and other engineering firms on ground-water development, utilization and management. Consultation with public agencies, corporate and private concerns regarding ground-water contamination, its identification, monitoring, and management. Consultation with legal profession on technical aspects of ground-water development and utilization, including all aspects of ground-water basin yield and management, well design and construction, and application of pumping equipment.

***Representative Professional Assignments (continued):***

- Engineering research in ground-water resources, development and management. Coordinated and conducted engineering projects concerning assessment of ground-water resources in various areas of California including mountainous and valley regions; application of principles of design, construction, completion and development of wells, aquifer analyses, design of pumping equipment, optimal and efficient operation of wells and pumps, and well rehabilitation and maintenance; design of artificial ground-water recharge facilities and practices, including surface infiltration and deep-well injection; assessment and development of brackish ground-water for water supply and cooling applications in industrial plants. Provided consultation services to engineering firms, local, state and federal agencies, corporate and private industry and farming interests, and well contractors on the development and management of ground-water resources.
- Project Engineer on water treatment, injection, and recovery systems for secondary oil recovery in Southern California oil fields; project engineer for the design and installation of facilities and utilities in a new oil field development in Central California; design engineer on various pumping and piping applications of water, oil, gas and other compressible fluids.

***Professional Affiliations:***

American Society of Civil Engineers

- Ground Water Committee, Irrigation and Drainage Division
- Water Resources Planning Committee, Water Resources Planning and Management Division

National Ground Water Association

- Association of Ground Water Scientists and Engineers

American Water Works Association

National Society of Professional Engineers

California Groundwater Association

Groundwater Resources Association of California

***Public Service:***

- **Yolo County Aggregate Resources Committee (1975-79)**, Alternate delegate, hydrologist - analysis of impacts and development of management plans for extraction of aggregate from Cache Creek basin.
- **California Tenth Biennial Conference on Ground Water (1975)**, Member, Planning Committee
- **Chancellor's Campus (Univ. of Calif., Davis) Water Committee (1976-78)**, Staff Engineer - analysis of water supplies and uses, projection of requirements, development of conservation and management plans.
- **City of Davis Water Planning and Conservation Committee (1977-79)**, Chairman - analysis of water supplies and uses, projection of requirements, consideration of alternative supplies, development of conservation and management plans.

**Public Service (continued):**

- **Yolo County Water Resources Task Force (1979)**, Member - development of county-wide master water plan.
- **Pacific Gas and Electric Co. ACT<sup>2</sup> Irrigation Pumping Demonstration Project (1992)**, Technical Advisor
- **Association of California Water Agencies (1994-1996)**, Member - Ground-Water Committee
- **Cache Creek Conservancy, (2000-2002)**, Director

**Teaching Activities:**

Course Coordinator and Instructor University Extension Courses, University of California, Davis:

Concepts of Ground Water Management (1974, 1976, 1978, 1981)  
Legal and Policy Considerations in Ground Water Management (1975, 1976, 1980)  
Water Supply Wells and Pumps (1977, 1978, 1981, 1983, 1985, 1986)  
Ground-Water Law, Hydrology and Management (2001, 2002, 2003, 2004, 2005)

Instructor, University of California, Davis, Water Science 198, Introductory Hydraulics (1977, 1978, 1979)

Lecturer, University of California, Davis, Water Science 2, 140, 160; Ecology 230; Civil Engineering / Geology 175 (1975 - 1979)

Lecturer on Aquifer Characteristics, Well Hydraulics, and Ground-Water Development, in Technical Training Classes at the U.S. Army Corps of Engineers' Hydraulic Engineering Center, Davis, CA.

**Publications and Presentations:**

Scott, V.H. and J.C. Scalmanini, **Water Wells and Pumps: Their Design, Construction, Operation, and Maintenance**, University of California Division of Agricultural Sciences Bulletin No. 1889, 1977.

Helweg, O.J., Scott, V.H., and J.C. Scalmanini, **Improving Well and Pump Efficiency**, American Water Works Association, 1983.

Scalmanini, J.C., and Scott V.H., **Design and Operational Criteria for Artificial Groundwater Recharge Facilities**, Water Science and Engineering Paper No. 2009, University of California, Davis, 1979.

Scalmanini, J.C., Scott, V.H., and O.J. Helweg, **Energy and Efficiency in Wells and Pumps**, presented at Twelfth Biennial Ground Water Conference, 1979.

Scalmanini, J.C., Johnson Jr., R.M., and E.E. Luhdorff Jr., **Development of a Ground-Water Monitoring Program as a Basis for Coastal Ground-Water Basin Management**, presented at the Fall Conference, American Water Works Association, CA-NV Section, 1983.

***Publications and Presentations (continued):***

Scalmanini, J.C., **3030 Hindsight and 2020 Foresight, Actual Ground-Water Management Experience**

**Over the Last 15 Years, Soquel Creek Water District**, presented at the Association of California Water Agencies' Ground-Water Management Conference, March 1994.

Scalmanini, J.C., **Legal and Technical Issues Related to Surface Water and Ground-Water Interaction**,

presented at the Groundwater Resources Association's California Ground Water & Efficient Usage for the Year 2000 and Beyond, October 1998.

Scalmanini, J.C., A. Schneider, and V. Cahill (panel presentation), **Groundwater Classification: Is the State**

**Water Resources Control Board's Jurisdiction Over Ground Water Changing?**, presented at the Water Education Foundation's 2000 Update on Water Law and Policy, July 2000.

Scalmanini, J.C., **What the Heck's a Sub-Basin? Defining Basins and Sub-Basins**, presented at the Association of California Water Agencies' Ground-Water Management: Will CalFed Help or Hinder Workshop, November 2000.

Scalmanini, J.C., **"Groundwater Law, Policy and Science: What can Be Done About The Disconnect"**,

presented at the Water Education Foundation's 2005 Water Law and Policy Briefing, San Diego, July 2005.