



*Douglas B. Moorehouse*

# DOUGLAS C. MOORHOUSE

1926–2012

Elected in 1982

*“Innovative technical and managerial leadership in geotechnical engineering, earth sciences, and environmental systems in response to the needs of society.”*

BY RUDOLPH BONAPARTE

**D**OUGLAS CECIL MOORHOUSE, a leader in the geotechnical/geocivil engineering, earth sciences, and environmental consulting profession and long-time president and CEO of the international consulting and engineering firm Woodward-Clyde Group, died March 14, 2012, at the age of 86.

Doug was born February 24, 1926, to Cecil and Linda Moorhouse in Oakland and grew up in the San Francisco Bay Area. As a child he was very close to his father, whose experiences during the Great Depression left an impression on Doug about work ethic and dealing with adversity that influenced him throughout his life.

Doug graduated from high school in 1944 and a week later joined the Army Specialized Training Reserve Program. By the end of the year, he was involved in heavy combat along the front lines of France in World War II. He was seriously wounded in battle and his life was saved by two fellow soldiers who pulled him to safety. He received the Purple Heart among other medals from the US Army. His experiences in the war and brush with death left indelible marks on him and influenced both his worldview and perspectives on human behavior and morality.

After the war, Doug returned to the Bay Area and married his first wife, Donis L. Slinker of Pasadena. He also entered

the Civil Engineering Program at the University of California, Berkeley, receiving his BS degree in 1950. He was a good student at Berkeley and developed a strong interest in the relatively young discipline of soil mechanics and foundation engineering. His teachers included Richard J. Woodward Jr., Ned P. Clyde, and Arnold Olitt, all of whom went on to found in 1950 the geotechnical engineering firm that later became Woodward-Clyde Consultants (WCC).

Upon graduation, Doug took a position as a research engineer with the State of California Division of Highways before joining his former professors at WCC in 1954. He stayed with the organization for the next 38 years, quickly establishing himself as a top engineer, manager, and natural leader. He became deeply involved in a wide range of projects throughout California, starting as WCC's Chief Highway and Airport Engineer in the firm's Oakland office before relocating in 1959 to San Diego to become branch manager of WCC's office there.

In 1962 he moved his family east to establish a WCC office in the New York–New Jersey metropolitan area and until 1973 was president and CEO of the regional WCC operating company Woodward-Moorhouse & Associates, headquartered in Clifton, NJ. He also attended Harvard University's Soil Mechanics Program in 1963 and Advanced Business Management Program in 1973.

In 1973 Doug and his family moved back to the San Francisco Bay Area when he became president of the entire set of Woodward-Clyde companies (Woodward-Clyde Group, Inc.) (WCGI) and then, from 1976 to 1991, president and CEO. Under his leadership, WCGI grew to more than 3,000 employees and expanded from its roots in geotechnical engineering to provide consulting and engineering services across a much wider range of disciplines, including the broader earth sciences field, environmental sciences and engineering, and water resources engineering.

In environmental consulting, Doug was one of the first leaders in the business to recognize the significance of the 1969 National Environmental Policy Act (NEPA) and to build an environmental consulting business based on NEPA and other

related federal and state environmental requirements. In his professional practice, Doug had a diversified background in civil and geotechnical engineering. He had responsibility for the geotechnical engineering aspects in the design and construction of buildings, nuclear and fossil fuel plants, dams, highways, railroads, bridges, tunnels, airports, and water and wastewater treatment plants.

Major projects that he was associated with include the Aswan Dam, Trans-Alaska pipeline, a new 1,600 km railroad line (Morocco), Auburn Dam seismic evaluation (California), Davis-Besse Nuclear Power Plant (Ohio), and nuclear waste repository siting studies for the US Department of Energy's Office of Nuclear Waste Isolation.

On the Trans-Alaska pipeline project, he made major contributions to the innovative design of thermal piles used to maintain permafrost conditions along portions of the pipeline alignment. He was also substantially involved in successfully addressing earthquake fault hazards and risks to the pipeline.

Doug was an early champion and adopter of novel techniques to improve the performance and reliability of engineered systems and structures. As a primary result of his efforts, WCC was one of the first civil engineering firms in the country to bring decision and risk analysis techniques to siting studies for critical infrastructure such as large dams and nuclear power plants. Doug was also heavily involved in providing technical support to resolve claims involving dam and reservoir failures, foundation failures, and large-project residential construction defect cases.

Throughout his career Doug was very active in service to the profession. He was president of the board of directors of the Hazardous Waste Action Coalition, chair of the Task Committee on International Competitiveness for the American Society of Civil Engineers (ASCE), member of the planning cabinet of the American Consulting Engineers Council (ACEC), member of the board of directors of the UC Berkeley Engineering Alumni Society, and senior fellow of the California Council on Science and Technology. He also served on the National Research Council Commission on Engineering and Technical Systems'

Advisory Board on the Built Environment (1983–1984) and Building Research Board (1984–1985).

Doug received many awards and honors, including, in 1969, ASCE's Wesley W. Horner Award for the paper he coauthored with David M. Greer, "Engineering-Geologic Studies for Sewer Projects." In 1972 he received the ACEC Award for Engineering Excellence for geotechnical and earthquake engineering projects at the Davis-Besse and Cooper nuclear power stations. He was elected to the National Academy of Engineering in 1982.

Doug had two children from his first marriage, Scott S. Moorhouse and Janice L. Moorhouse. In 1987 he married Dorothy Otis and, after his retirement from WCGI in 1992, they bought land and built a home in Calistoga, California, in the Knights Valley region. They developed it into vineyard property, which they called the Double D Ranch, and Doug became a wine grape grower for a number of years. He also served as a board member of the San Francisco Bay Area Alzheimer's Association, a cause he cared deeply about and worked hard to support.

Through the years, he enjoyed as hobbies automobile racing as well as sailboat racing and cruising in San Francisco Bay. In his retirement he took up fly fishing, a hobby that he pursued with Dorothy. He also became an avid reader and student of history.

Doug was an exceptional consulting engineer, business executive, and human being. He worked tirelessly, demanded excellence in himself and others, was a tremendous leader and visionary, and was a strong mentor to many. Despite his commanding personal presence, he questioned authority and demanded independent thinking. Complementing these strengths, he was also compassionate and caring, and helped many people in need of support. Those who met Doug remembered him.

Doug's second wife Dorothy passed away on February 15, 2015. He is survived by his children Scott (in Denver) and Janice (in Santa Rosa, California), and by Dorothy's daughters Jane Matthews (in Anchorage), Lee Otis (in Seattle), and Edie Otis (in Sebastopol, California), and six grandchildren.

