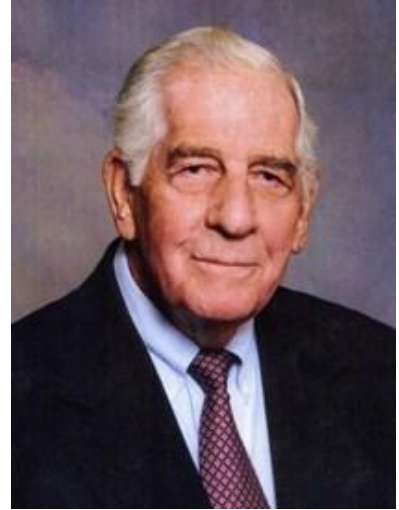


Stephen George Conrad (1927 – 2011)

10th State Geologist of North Carolina

Stephen George Conrad, 84, passed away peacefully on December 21, 2011 in Raleigh, N.C. He was born in Gastonia, N.C. son of the late Stephen Gwynn Conrad and Susie Carroll Conrad. He is lovingly remembered by his beloved wife of 62 years, Dolores, daughters Carol Gwynn Conrad of Greensboro, and Ann Whitfield and husband Craig of Creedmoor.

During Mr. Conrad's 34-year N.C. Geological Survey career, he demonstrated on numerous occasions the skills and abilities – vision, political savvy, drive, cooperation and tenacity -- necessary to lead a successful geological survey. He provided leadership of the State's efforts in (1) geologic mapping, (2) mineral resource evaluation, (3) topographic map production, (4) the beginnings of Geographic Information Systems (GIS), (5) the professional licensure of geologists, (6) the initiation of mining reclamation in the State and (7) the launch of the Interstate Mining Compact Commission.



Mr. Conrad enlisted the U.S. Marine Corps prior to obtaining his bachelors of science degree in geologic engineering in 1952 from North Carolina State College (NCSC). In March of 1956, he joined the N.C. Geological Survey and his mentor, State Geologist Jasper L. Stuckey. In preparation for the publication of the 1958 North Carolina Geologic Map, Mr. Conrad and Dr. Stuckey mapped parts of Johnston, Wake, Harnett, Lee, Chatham and Randolph counties at a reconnaissance-scale.

Stuckey and Conrad co-authored NCGS Bulletin No. 71 – “Explanatory Text for the Geologic Map of North Carolina, 1958,” and in 1960, Conrad was promoted to Assistant State Geologist. He supervised all geologic and mineral resource activities. Twenty-eight year later, in 1985, Mr. Conrad again oversaw the updating and publication of a new 1:500,000 state geologic map.

On July 16, 1964, Stephen George Conrad was appointed the State Geologist of North Carolina and replaced the retiring Dr. Jasper L. Stuckey. By the fall of 1968, when the Tennessee Valley Authority (TVA) was authorized by Congress to initiate a cooperative geologic mapping effort, Conrad had secured state matching funds to map the forty 7.5' quadrangles that encompassed the French Broad River drainage. When TVA funding ended eleven years later in 1979, he negotiated an agreement with the U.S. Geological Survey to complete the work with over \$300,000 in state match.

As a member, officer [vice-president, president-elect, president, past-president (1978-1982)] and honorary of the Association of American of State Geologists (AASG), Mr. Conrad met three times a year with federal agencies, congressional staff and the State's congressional delegation to discuss national geologic priorities. He had a perfect attendance at the AASG annual meeting for nearly twenty years. He and others state geologists were vital to securing federal funding to assist the states and universities in mapping.

In 1969, the North Carolina General Assembly enacted a bill entitled the “Mining Registration Act of 1969.” This bill created the position of State Mining Engineer, required all mining operations in the State to be registered by the State Mining Engineer prior to March 31, 1970, and instructed the North Carolina Mining Council to prepare

additional recommendations leading to a state mined land reclamation program for consideration by the 1971 General Assembly. Mr. Conrad hired the first State Mining Engineer and used his many contacts within the mining industry to ensure that the mine registration was accomplished.

The 1971 General Assembly enacted the "Mining Act of 1971." This is a comprehensive mined land reclamation bill that requires every mining operation in the State to obtain a permit after July 1, 1972 and to post a reclamation bond. The Mining Division in the Office of Earth Resources was established for the purpose of implementing and administering the "Mining Act of 1971," and was placed under Mr. Conrad's direction. Although the Mining Act contained enforcement provisions, the program relied heavily on voluntary compliance in the early years. Mr. Conrad's knowledge of the North Carolina's mining industry, and the mining industry's respect for him helped pave the way for the start of this regulatory program.

Mr. Conrad played a critical role in the Department's and Division's transition from an entirely natural resources agency into the regulatory environment. He was always considered an "honest broker" because he was highly respected and trusted among all sectors.

Efforts to enact a Geologists Licensing Act began in 1975. There was a hiatus in the late 1970s to early 1980s, while the state legislature honored its moratorium on considering new licensing boards. The effort resumed in 1982 and the Geologists Licensing Act passed and was signed by Governor Jim Hunt in 1984.

It fell to Mr. Conrad to organize the search for members of the initial board, which developed and promulgated rules and regulations, created and distributed application packages, evaluated almost 1,000 applications for geology licenses and developed the first examination. Mr. Conrad was a key to the success of this initial board. He offered his knowledge of how the state works, arranged for meeting places in Raleigh and other locations in the state, and helped communicate with the printing office and the Attorney General's office.

Mr. Conrad was also a prime mover at start of geographic information systems (GIS), as a Section in his Division and later applying that technology in the Survey. He also saw the completion of the NCGS/USGS cooperative 1:24,000-scale topographic maps for the entire state in 1985.

In January 1986, a new 1:500,000 scale Geologic Map of North Carolina was completed and the new map reflected significant advances made in understanding the geology of the State during the past 28 years. That same year, the Department of Energy (DOE) announced that two of the 12 sites for a potential high-level radioactive waste storage facility would be in North Carolina. The Elk River Potential Suitable Area (PSA) had been identified in the granitic rocks west of Asheville. Funding was secured to conduct detailed geologic mapping of Sandy Mush and Canton 7.5' quadrangles to help characterize the site.

The two quadrangles were finished the next year, but DOE had already been directed to terminate research on granite as a repository medium. The Geologic Map and Mineral Resources Summary for both quadrangles as well as the subsequent overview report demonstrated the site was not suitable for the long-term underground storage of high-level radioactive material. In January 1988, North Carolina was designed by DOE as one of seven states qualifying for their "Best Qualified List" for the Superconducting Super Collider (SSC) facility. Another state was later selected but the NCGS dedicated two man-years of effort to providing a geologic framework for the state proposed site application.

In 1989, the Survey began a long-term 100K-scale mapping program focused on the Raleigh and Asheville sheets. Mapping on the Raleigh 100K sheet would be a COGEOMAP project in an urban area.

Mr. Conrad's term as State Geologist ended with the Survey being tasked to provide technical leadership on the siting of a low-level radioactive waste facility in the State. North Carolina was selected as the next host state for a disposal facility for the Southeast Low-Level Radioactive Waste Compact. Geologic mapping was significantly curtailed as staff members were drawn into the regulatory review process. Early on in the project, the oversight would require the Survey to independently verify the observations made by the contractor in order to certify the work to the Authority.

Following his retirement in 1990, Mr. Conrad remained active in the affairs of the N.C. Geological Survey and the geological community at large. He was a member of the NCGS Geological Advisory Committee from 2001 to 2011.

Another side of Mr. Conrad was his volunteer service, which began in the 1960s with the State Employees' Credit Union (SECU). He served on the Board of Directors on two separate occasions, from 1973-1992 and 1999-2011. During his tenure with the Board, he held various positions, including Chairman. In November 2011, he was honored for over 40 years of volunteer service to the SECU.

In April 2008, at the 57th Annual Meeting of the Southeastern Section of the Geological Society of America, the "Symposium in Honor of Stephen G. Conrad, State Geologist of North Carolina 1964 – 1990" was convened. Six speakers presented the achievements of Mr. Conrad's career and a letter of congratulations from the AASG President was read to the assembled group. At the conclusion of the symposium, State Geologist James D. Simons presented the Order of the Long Leaf Pine, the highest award given by the State of North Carolina, to Mr. Conrad on behalf of Governor Michael F. Easley. Stephen George Conrad was our State's longest serving State Geologist.

His funeral service was held on Saturday, December 24, 2011 in Raleigh, N.C., with internment at the Raleigh Memorial Park.