

Introduction to Special Issue on Slope Stability in Memory of Jerome (Jerry) De Graff: Part 1

DENNIS STALEY*

U.S. Geological Survey, 4230 University Drive, Anchorage, AK 99508

JEREMY LANCASTER

California Geological Survey, 801 K Street, Suite 1200, Sacramento, CA 95814

ALAN GALLEGOS

U.S. Forest Service (retired), 28270 Burrough Valley Rd, Tollhouse, CA 93667

THAD WASKLEWICZ

*Stantec Consulting Services Inc., 3325 South Timberline Rd Ste 150,
Fort Collins, CO 80525*



The environmental and engineering geoscience community is indebted to the career of Jerome (Jerry) De Graff, whose publications, teachings, and presentations spanned a diversity of physiographic environments, geologic and geomorphic processes, and applied scientific topics that focused on understanding and assessing natural hazards, reducing risk, improving life safety, and providing scientifically informed guidance for establishing public policy. Results of his scientific pursuits continue to be influential in the hazard arenas of North America and abroad. Jerry's publications and lectures inspired us, entertained us, enlightened us, and challenged us to be better scientists, engineers, public servants, and global citizens. Jerry passed away on March 26, 2020, and is survived by his

wife Sandy, sons Nicholas and Mark, and grandson Liam.

Jerry was raised in the small western New York agricultural community of Honeoye, and attended the nearby State University of New York, College at Geneseo. Geneseo was a small public college specializing in education and nestled on the glacially sculpted hillslopes above the Genesee River. Here, Jerry received formal education toward his passions of education and geology and received a Baccalaureate in Science in Earth Science Education in 1967. After his undergraduate studies, Jerry served as a junior high school science teacher in Pittsford, NY, and as an instructor for the Strasenburgh Planetarium at the Rochester Museum of Science and Nature in Rochester, NY.

The lure of exposed bedrock and easily seen evidence of active geomorphologic processes in the western United States led Jerry to Utah, where he pursued his Master of Science degree in Geology at Utah State University and completed a thesis related to the Quaternary geomorphology of the Bear River mountain range in northcentral Utah. Jerry spent 2 years at Utah State as a research technician after completing his graduate studies. In 1977, he began his long and productive career in the U.S. Forest Service, spending several years in Utah before moving to California, where he worked on a variety of projects related to geologic and hydrologic hazards in the western United States and abroad.

Our goal for this special volume of *Environmental and Engineering Geoscience* is to publish papers that captured the essence of Jerry's legacy, including research related to landslide, rockfall, and debris-flow processes and susceptibility; the geomorphology

*Corresponding author email: dstaley@usgs.gov

of wildfire-affected landscapes; geological hazards and hazard assessment; and the general advancement of the disciplines of environmental and engineering geology in the context of population growth and a changing planet.

In this issue, the first of two in this special volume, we have included seven papers that span a range of topics representative of Jerry's research interests. Three papers, first-authored by his U.S. Forest Service colleague Jonathan (Yonni) Schwartz, Pete Cafferata from the California Geological Survey, and Chad Neptune, his most recent graduate student, focus on post-fire debris flows in the western United States. Post-fire landslides and debris flows were a topic particularly important to Jerry since at least 1987, when he wrote his first fire-related report, titled "Using Past Landslide Activity to Guide Post-Wildfire Mitigation," and spent the rest of his career working on post-fire debris flow, flooding, and landslide research, hazard assessment, and mitigation.

Landslide and rockfall processes were a topic that Jerry actively researched throughout his career. His first publication related to landslide processes and haz-

ard assessment in Utah appeared in the journal *Environmental Geology* in 1978. He continued to publish numerous rockfall and landslide papers and make presentations at conferences throughout his career. Two excellent papers in this issue, first-authored by James McCalpin, engineering geologist with GEO-HAZ Inc. and Chris Pluhar, Jerry's colleague at Fresno State University, testify to Jerry's impact on research of rockfall and landslide processes in the western United States.

Jerry also had a passion for the development and application of robust science and innovative methodology to assess hazard potential, inform policy decisions, and reduce public risk to these hazards. We are pleased to include two papers, authored by Cory Wallace of Yeh & Associates, Inc. and Wendy Zhou from the Colorado School of Mines, that focus on those objectives in this issue.

As co-editors, we hope you find this diverse collection of manuscripts interesting and informative, a worthy addition to the environmental and engineering geoscience literature, and a testament to the lasting legacy of Jerry De Graff.