# WIE

# PERSONNEL QUALIFICATIONS

# Michael W. West | Principal



# **EDUCATION**

- Colorado School of Mines
  - Professional Degree, Geological Engineering, 1970
  - Master of Science, Geological Engineering, 1977
  - Doctor of Philosophy,
     Geological Engineering, 1989
- U.S. Army Engineer School, Graduate, Engineer Officer Basic Course, 1971

# **PRACTICE AREAS**

- Geological/Geotechnical Site Characterization
- Seismic Risk Assessment
- Geologic Hazard/Risk Assessment
- Mine Infrastructure Development
- Failure Analysis
- Litigation Consulting

# **REGISTRATIONS**

- Professional Engineer in AZ and CO
- Professional Geologist in WY

### **PROFESSIONAL AFFILIATIONS**

- Association of Engineering Geologists
- Geological Society of America
- Seismological Society of America

# **CONTACT**

mwest@wje.com 303.914.4300 www.wje.com

#### **EXPERIENCE**

Michael West has more than forty-seven years of experience in the field of geotechnical and geological engineering. Over his career, he has engineered geological, geophysical, and seismological studies for dams, tunnels, power plants, mining projects, and other major engineering structures. Dr. West has also provided specialized technical services in earthquake hazard analyses for dams and other critical facilities, forensic geological and geotechnical engineering, rock slope stability investigations, and dam safety evaluations. He has also performed numerous hydrogeological and environmental studies for mine/industrial sites and other land developments.

Prior to joining WJE, Dr. West's experience spanned more than thirty-five years as an owner and operator of his own firm, Michael W. West & Associates. He also was chief of the earthquake hazards group with the U.S. Bureau of Reclamation, and worked with various private firms and the Colorado Department of Highways.

# **REPRESENTATIVE PROJECTS**

# Geological/Geotechnical Site Characterization

- Keren and the Upper Mereb River Water Supply Projects - Eritrea, East Africa: Engineering geological, geotechnical, and seismic hazard studies \*
- Black Canyon Lake Dam Navajo County, AZ:
   Filter and drainage design, embankment
   stability analysis, and spillway enlargement\*
- Fossil Trace Golf Course Golden, CO:
   Stability evaluations, instrumentation, and construction phase services/rock scaling \*
- Clear Creek Oil Shale Project Grand Junction, CO: Hydrogeological investigation for Chevron\*
- Union Oil Shale Project Parachute, CO: Engineering geological and geophysical studies\*
- Roan Creek Dam DeBeque, CO: Geological and geotechnical studies \*

# **Seismic Risk Assessment**

Loup River Power District Facilities - Genoa, NE: FERC-mandated seismic hazard analysis \*

- Jordanelle, Meeks Cabin, Stateline, Upper Bear, Senac, Rock Creek and O'Sullivan Dams
   North-Central UT: Seismotectonic hazard studies\*
- Genesee No. 2 Dam Jefferson County, CO: Probabilistic seismic hazard study, geologic engineering subsurface investigation, geologic mapping, and construction phase services\*
- Emergency Storage Program San Diego County, CA: Engineering geological, geotechnical, and seismic hazard studies\*

# **Geologic Hazard/Risk Assessment**

- Keystone Mountain House Summit County, CO: Geological, geotechnical, and slope stability studies for redevelopment of the base area\*
- Various building sites Cordillera, CO: Analysis of landslide hazard and risk\*
- Hayden Creek Resort west of Canon City, CO: Analysis of debris flow hazards\*

# **Mine Infrastructure Development**

- Toromocho Copper Mine Central Peru: Geologic hazard/risk assessment\*
- La Colosa Gold Project Colombia: Tailings dam site selection/evaluation\*
- Constancia Project Southern Peru: Mine infrastructure development\*

# **Failure Analysis**

 Swift No. 2 Power Canal and Forebay - Lewis River, Cowlitz County, Washington: Geological/geotechnical studies related to failure, redesign, and reconstruction\*

# **Litigation Consulting**

- Heritage at Vista Ridge Filings 1B-a and 1B-b
  Erie, CO: Geotechnical investigation, standard of care assessment, and expert witness\*
- Wyoming State Penitentiary Rawlins, WY: Assessment of natural causes of foundation and ground water damage; opinion on liability of parties involved in design and construction of the facilities\*
- Ponds at Blue River Silverthorne, CO: Forensic geotechnical investigation, numerical model assessment, instrumentation installation and monitoring, and expert witness\*
- \* Projects prior to WJE

