



SERVICE PROFILE

Geotechnical and Geological Engineering



- Geological hazard assessment
- Earth retention and slope stabilization
- Water resource dams and canals
- Geotechnical instrumentation
- Residential and commercial development
- Mine development
- Forensic engineering
- Litigation consulting

The built world resides in the natural world. Though much consideration is paid to the impact our structures have on the natural world, the connection runs both ways. The soil, groundwater, geology, and natural terrain of a structure's environment can significantly impact its performance. Understanding these factors is key to assessing field conditions, developing appropriate construction or repair details, and mitigating potential hazards.

WJE geotechnical and geological engineers have decades of experience providing a broad range of technical consulting services for clients globally. Principal areas of practice include geotechnical engineering, engineering geology, environmental geology, ground water hydrology, geological hazard evaluations, earthquake engineering, and forensic engineering.

Whether investigating a retaining wall failure or residential foundation movement, conducting field reconnaissance for a mining facility, or performing probabilistic seismic hazard evaluations for a high-risk dam, our experts have the hands-on knowledge, advanced testing, and analytical capabilities clients seek to maintain stable, durable buildings and infrastructure.





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REPRESENTATIVE PROJECTS

- FEMA Landslide Study - Colorado Springs, CO: Condition surveys and risk assessments of twenty-three homes built in landslide zones
- I-75 Northwest Corridor Project - Atlanta, GA: Failure investigation and design of repairs to address a compromised soil nail wall and precast fascia system
- Keren Water Supply Project - Eritrea: Geologic mapping, geophysical investigations, and laboratory testing for construction of a diversion dam and water treatment facilities
- Keystone Resort Mountain House - Summit County, CO: Geological hazard assessment, slope stability evaluation, instrumentation and monitoring, and construction recommendations
- La Colosa Mine - Tolima, Colombia: Pre-feasibility studies of high-altitude gold mine
- Lake Las Vegas Dam - Henderson, NV: Geological consultation and construction inspection of reservoir and dam development
- Swift No. 2 Dam - Cascade Range, WA: Investigation of dam failure and repair plan review
- Vista Ridge - Erie, CO: Geological engineering and expert witness services in connection with litigation over alleged vertical foundation movement at eighty-six homes
- Walgreens - Dillon, CO: Earth retention and slope stability analysis of failed retaining wall
- Wyoming State Penitentiary - Rawlins, WY: Investigation of foundation and slab movements; litigation support

