

# Snoqualmie Falls Hydropower Redevelopment

Puget Sound Energy's (PSE) three-year, \$200-million hydropower redevelopment project involves substantial upgrades to power-generating infrastructure and major enhancements to public recreational facilities at Snoqualmie Falls in the state of Washington. Kleinfelder provided comprehensive quality assurance and quality control services for this exceptional project in one of the Pacific Northwest's most scenic destinations.

## PROJECT RESULTS

*Kleinfelder's close collaboration with PSE's project management, its design team, and the construction contractor moved this high-profile, complex project towards its scheduled completion in early 2013. The improvements enable PSE to continue to provide exceptional electrical service to customers while meeting its civic commitments and regulatory obligations.*



## COMPLETELY UNDERGROUND POWER HOUSE

The project includes the demolition, expansion, and rebuilding of North America's first completely underground power house, which is a century old and uniquely accessible down a 294-foot vertical shaft. Construction work areas include tunnels, a cavern, multiple intake structures, a dam, high-pressure penstocks, and a second powerhouse located on the Snoqualmie River. Water demolition and construction required scheduling around fish closure windows, requiring some 14 seasonal and 100-year flood cofferdams.

## DEVELOPING THE RIGHT SOLUTIONS

Kleinfelder monitored all construction activities to ensure adherence to design plans and specifications. Kleinfelder then consolidated all materials testing to one laboratory and incorporated project documentation directly into owner- and Kleinfelder-maintained databases. To address demanding construction schedules, lead inspectors worked day-to-day with the same construction teams, anticipating needs and developing solutions. Realtime vibration instrumentation and review of construction blasting plans during months of blasting operations maintained the serenity of public viewing areas and the destination resort located at Snoqualmie Falls.

### Location:

Snoqualmie, Washington

### Owner:

Puget Sound Energy

