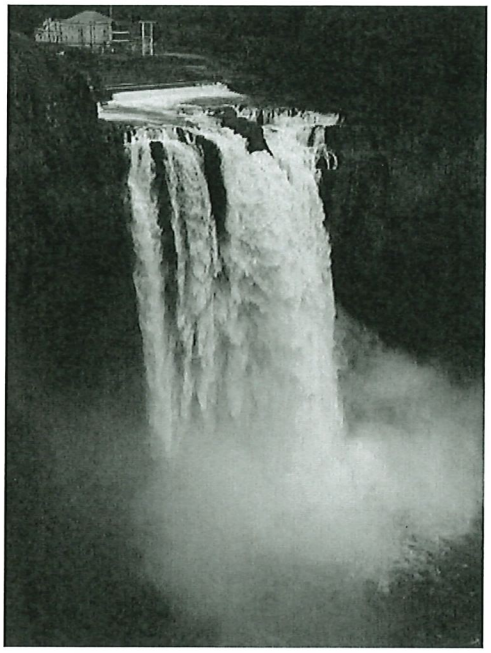
PUGET SOUND ENERGY

Snoqualmie Falls Hydroelectric Project FERC No. 2493



LOCATION AND DRAINAGE BASIN

The Snoqualmie Falls Project, owned and operated by Puget Sound Energy, is located approximately 25 miles east of Seattle in the town of Snoqualmie, King County, Washington. The Project sits along the banks of the Snoqualmie River, and the river's three forks above the project drain 400 square miles of the western slopes of the Cascade Mountains.

FALLS HISTORY

Many years ago, Native Americans traveling through the mountains to the Puget Sound fishing grounds used the area as a campsite. Tribes built their camp and council fires on the edge of the cataract and named it "sdoh-kwahl-bu" meaning "Moon People." Later visitors changed this name to "Snoqualmie."

A favorite scenic spot, Snoqualmie Falls has an elevation drop of 268 feet, a distance approximately one hundred feet greater than Niagara Falls. A plunge pool, normally sixty-five feet deep, is formed below.

LICENSE

The original license for the Snoqualmie Project was issued on May 13, 1975, effective on March 1, 1956. That license expired on December 31, 1993. PSE filed the Snoqualmie Project license application with the Federal Energy Regulatory Commission (FERC) on November 25, 1991 and FERC issued the new 40-year license on June 29, 2004. A FERC Order amending the License was later issued on June 1, 2009.

POWERHOUSES, GENERATORS AND TURBINES

In 1898, the first generating facilities were constructed on the left bank of the river above the falls. These facilities were patterned somewhat after Niagara Falls Hydroelectric Project. The original generating equipment consisted of four units, with a capacity of 1,500 kW each. The units were installed in a cavity that was hollowed out of basaltic rock 268 feet underground and measured 200 feet long, 40 feet wide and 30 feet high. A water outlet, or tailrace, in the form of a tunnel 450 feet long, 12 feet wide and 27 feet high conducts the water discharge from the turbines to the river at the base of the falls. A fifth unit with a capacity of 5,600 kW was added to the "cavity powerhouse" in 1905.

A second powerhouse of conventional design (above ground) was built in 1910. It was located about half a mile below the falls on the right bank of the river and was originally constructed to house one generating unit rated at 9,000 kW. In 1957, this powerhouse was expanded to accommodate a second unit, rated at 20,250 kW. With the addition of this latest unit, the total capacity of the entire project had increased to 44,500 kW.
The energy produced from both power houses is stepped up to 115,000 volts and delivered a short distance away to the Snoqualmie Transmission Substation, which was constructed in 1957.

DAM
A small diversion dam forms the crest of Snoqualmie Falls. It consists of a flat concrete slab that spans the river and is about 200 feet long and 12 feet wide. The dam allows diversion of water just upstream of the falls into two sets of intakes, one for the turbines in Powerhouse 1 on the left bank of the Snoqualmie River, and the other to Powerhouse 2 on the right bank of the river.