Great Baker River Power Plant Nearing Completion

"Lake Shannon" Newly Created 7-Mile Lake

Washington's newest hydro-electric project, the great Baker river plant, is rapidly nearing completion. It will ultimately become the largest hydro-electric power plant of the Puget Sound Power & Light company.

In honor of William D. Shannon, the man who has had entire charge of construction, the lake formed by the dam blown across the Baker river will be known as "Shannon Lake." The lake will be more than seven miles long and will contain sufficient water to cover 70,000 acres one foot deep, ample to supply the power plant with the necessary flow every day throughout the year. The surface of the lake will be 1780 acres, and it will be 245 feet above sea level.

W.D. Shannon
Chief Engineer
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Baker River rises among the glaciers on the south slopes of Mount Baker and Mount Shuksan in Whatcom County. Near the foot of these peaks a glacial moraine backs up the river to form beautiful Baker Lake, the elevation of which is 664 feet above sea level. From the lake the stream flows down mountain gorges and through a valley 15 miles to its confluence with the Skagit River, near Concrete. Just before reaching the Skagit the Baker flows through deep Eden gorge, across which the power project dam has been built 245 feet high and 180 feet thick at the base. It contains more than 220,000 cubic yards of concrete masonry.

Back of this gigantic dam will be Shannon Lake, the reservoir that will store the flood waters of the river which will develop eventually 80,000 horsepower for use throughout Western and Central Washington wherever the Puget Sound Power & Light company’s transmission lines extend.

The first installation of power units will consist of two 20,000 horsepower water wheels. These giant generators are now in place and almost ready for operation. The power house has been designed for future development of the project up to 80,000 horsepower.

The main pressure tunnel has been constructed through the solid limestone of the canyon’s side and is 24 feet in diameter. The tunnel is approximately 1300 feet long, lined with concrete, and will carry the water from the reservoir to the penstocks. A surge tank has been provided near the lower end of the tunnel. Gates and rack bars control the inlet of water at the upper end of the tunnel.

Short pipes or penstocks connect the pressure tunnel with the power house and will deliver the water to the turbines.

The cost of this great undertaking, with a 13,000 kilowatt substation at Sedro-Woolley, is exceeding $8,000,000.

Under the supervision of Mr. Shannon, a world’s record is being made in the construction of this project. As far as known no other plant of equal power will have been constructed in as short a time, or at a smaller relative outlay, and this despite the fact that last winter proved one of the worst on record. Construction was started April 1, 1924.

Baker River power will go through the largest out-of-doors sub-station in the Pacific Northwest, at Beverly Park, near Everett, and another at Sedro-Woolley. Transmission lines will lead to Bellingham from Sedro-Woolley and also to Beverly Park and from there to Seattle, crossing the Lake Washington canal on steel towers 233 feet high.

Re-typed verbatim from the original microfiche obtained from the Washington State Archives.