

The Lake Dorothy Project

(<http://www.aelp.com/Lake%20Dorothy/lakedorothy.htm>)

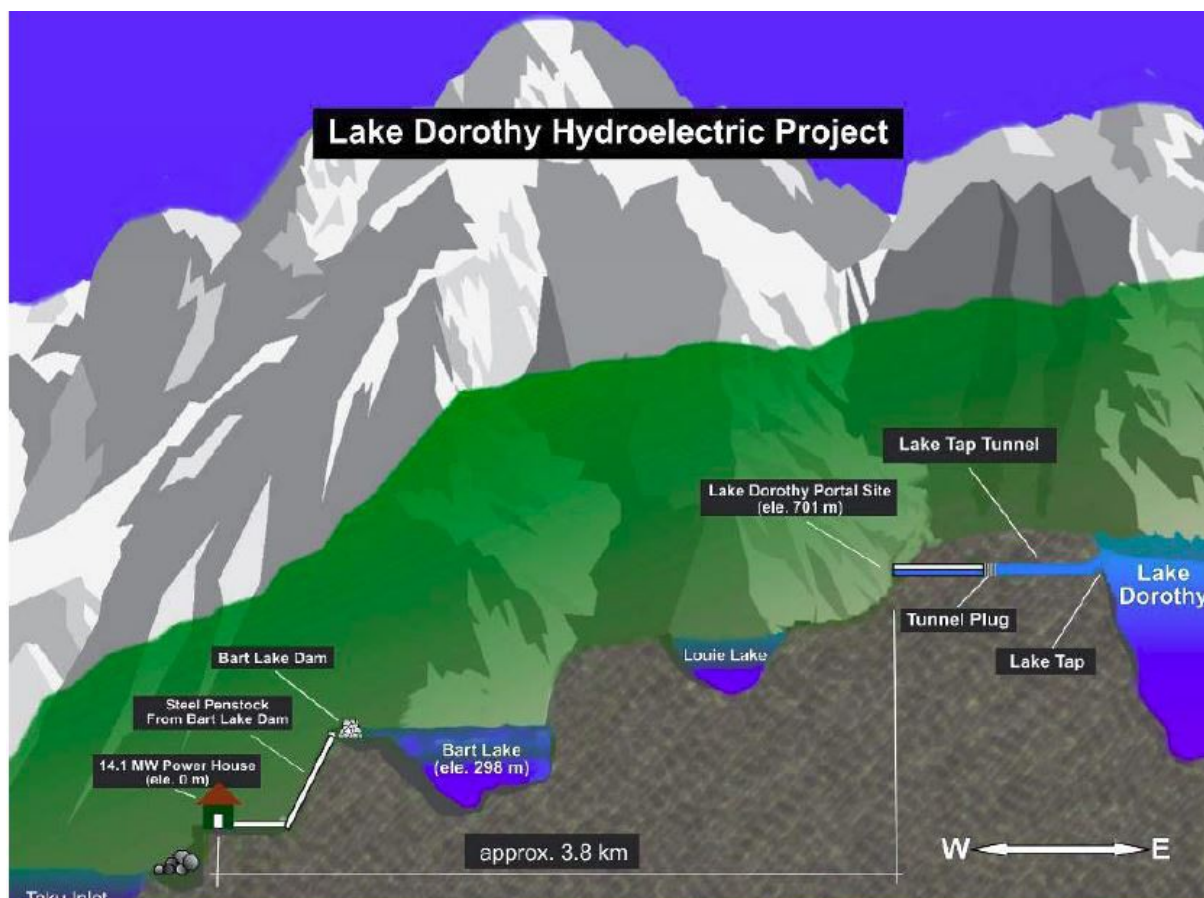
TOPO MAP

It is located on the east bank of Taku Inlet, about 15 miles from Juneau. Except for 3.5 miles of its own transmission line, it utilizes a portion of the Snettisham transmission line to bring electricity into town. This 14.3 MW project, located near the Snettisham hydroelectric facilities near Juneau, increased the power supply to Juneau by 20 percent when it went online in 2009. The hydro project also provides power to Princess Cruise Lines and Greens Creek Mining Company

Water from Lake Dorothy (2423ft) is used by taking advantage of the natural flow of water between Lake Dorothy, Lieuy Lake and Bart Lake – a stair-step set of lakes feeding into Dorothy Creek. The side of Lake Dorothy was tapped 143 feet below the lake's surface. This water flows through a 900 foot tunnel and through a large valve into an outlet pipe used to control the amount of water released to the natural drainage from Lake Dorothy into Lieuy Lake (1711ft) where it then follows the natural drainage into Bart Lake (986ft).

At Bart Lake, a 34 foot high dam was constructed and water is diverted into a penstock to the power house. The powerhouse houses a 14.3 megawatt generator. The project also includes a crew quarters and a substation. A road was built from the powerhouse to access the Bart Lake workings and for penstock installation.

The Lake Dorothy Project went into operation on Aug. 31, 2009.



Lake Dorothy Hydro



Lake Dorothy Portal on July 25, 2009



Grafics from: Tim McLeod: Lake Dorothy Generation Cost