



Lucky Peak Dam and Lake: The Rooster Tail

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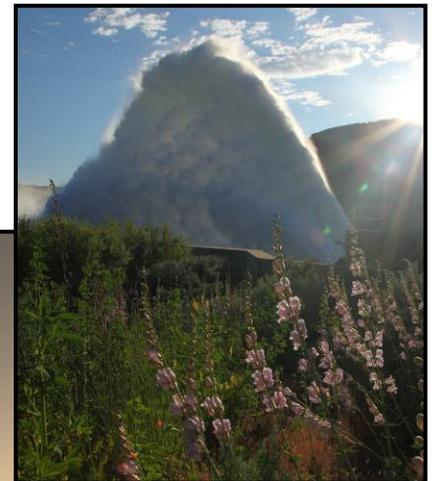
Welcome to Lucky Peak Dam and Lake!

Named after a successful gold mining camp three miles to the north, Lucky Peak Dam has provided flood risk management of the Boise River for Idaho's Treasure Valley since 1954, preventing about \$1.3 billion in flood damages.

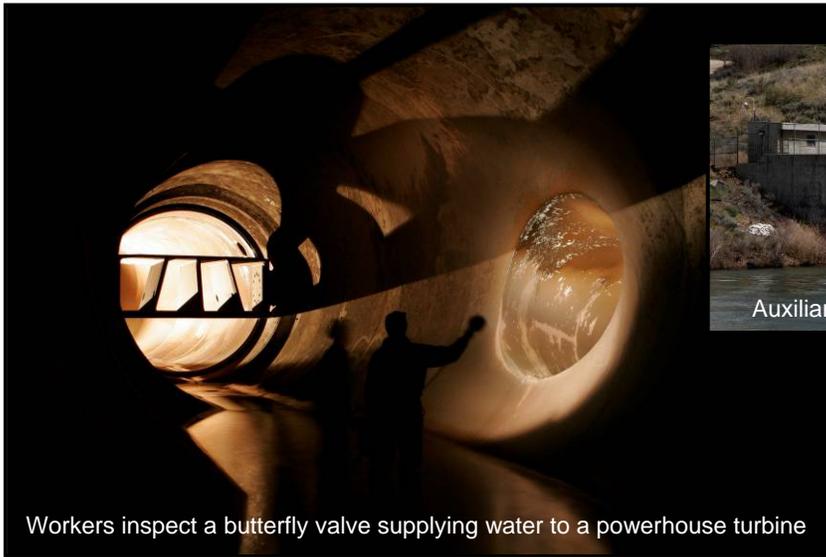
About one million people visit Lucky Peak each year to enjoy lakeside outdoor recreation activities. Lucky Peak Lake provides habitat for deer and elk herds of the Boise River Wildlife Management Area, managed by Idaho Department of Fish and Game. From irrigation water to wintering elk to water skiing, Lucky Peak is one of many economic drivers in the region.



A popular springtime attraction is the "Rooster Tail" which results from the discharge of water through the original release structures of the dam under pressure from the lake above. Using a "flip bucket" to direct the spray high into the air, the erosive, scouring force of the water is greatly dissipated as it rises, rests and slowly falls back to the stream channel.



The Rooster Tail only uses water from large releases required for flood risk management that exceed powerhouse capacity, thus no water is wasted for the display. It occurred daily until 1986 when construction of the Lucky Peak Power Plant Project started.



Workers inspect a butterfly valve supplying water to a powerhouse turbine



Auxiliary tunnel release structure

The powerhouse, owned and operated by four irrigation districts within the Boise Project Board of Control, began generating power in October 1988. At peak generation, the powerhouse on

Lucky Peak Dam produces 101 megawatts of electricity – enough power for about 100,000 homes.

The amount of water passing through Lucky Peak Dam is determined by the U.S. Army Corps of Engineers, the Bureau of

Reclamation and the Boise River Watermaster. Together, they manage releases to maintain flood storage space and meet Southwest Idaho's irrigation needs.

A second auxiliary tunnel was built to manage water during the construction of the powerhouse. This tunnel, opening directly across from Discovery Park, now routinely handles all releases in excess of powerhouse capacity, and is often confused with the Rooster Tail.

To reduce wear and tear on the original release structures, the Rooster Tail is briefly conducted as a public attraction, generally in May during the springtime runoff season. The Rooster Tail flow is typically 1,500 to 2,500 cubic feet of water per second (cfs) escaping from a single 6-foot gate opened 3 to 5 feet. Visualize the same number of basketballs escaping the tunnel each second – a mere fraction of the 39,000 cfs total controlled release capacity of Lucky Peak Dam facilities.

The Corps of Engineers, Lucky Peak Power Plant Project, Idaho Department of Parks and Recreation, and other partnering agencies work together to share a small piece of Treasure Valley history by providing Rooster Tail viewing opportunities to the public.



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