

Ernst Holland driving a tractor in the drained Blue Lake 1975. Photo: JCH&PS collection.



HAPPY BIRTHDAY – JENOLAN CAVES BLUE LAKE

– Jenny Whitby*



Did you know that the Blue Lake celebrates its centenary this year!

The Jenolan Blue Lake (the Lake) is one of the Reserve's more prominent features, and it provides a visually spectacular entrance to the Grand Arch Precinct while complementing nearby features including the Reserve's diverse Eucalypt forest communities. In addition to its aesthetic qualities, the Lake and its surrounds provide habitat for terrestrial and aquatic fauna and flora.

In the 1870s visitors to the caves camped in the Grand Arch or Devil's Coach house using the Jenolan River as a source of fresh water. The first reservoir on Surveyors Creek was constructed in the late 1880s on the site of the present children's playground above Caves House.



2005 draining of the Blue Lake to remove debris.
Photo: Dave Rowling.

Debris in the Blue Lake, photo taken in 2005 from the dam wall. Photo: Dave Rowling.



Ten years later this reservoir proved insufficient to meet the demand of the increased numbers of visitors to Caves House Precinct, and a larger reservoir was constructed upstream by placing a weir across the creek.



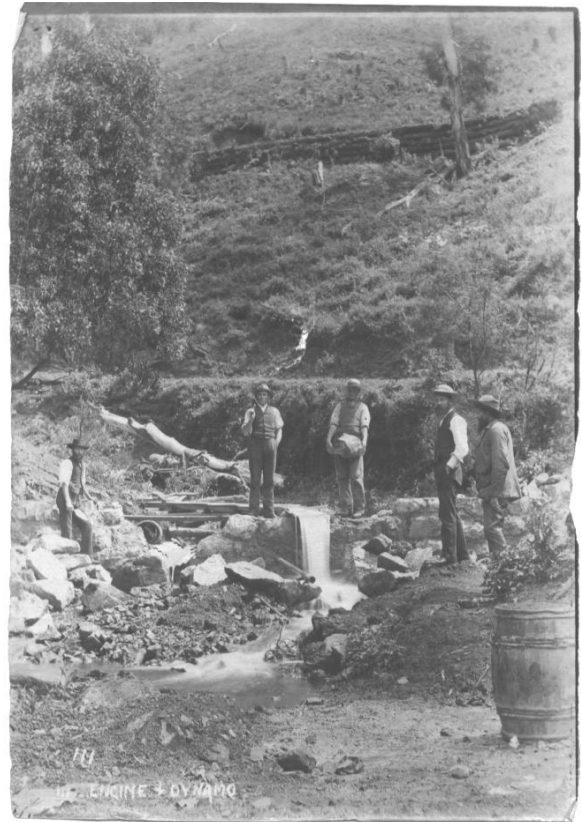
Dam wall in the 1970s after draining of the Blue Lake. Photo: Noel Rawlinson.

The reservoir was later in filled to form Car Park No 1 but the original weir remains. In 1908 a third weir was built near the Leffel Wheel on the Jenolan River below the Grand Arch and the Blue Lake was created.

But by 1920 even this was insufficient to cater for the visiting population, which had increased from 7000 people in 1909 to 64245.

The Lake is an artificial construction created in 1908 by building a dam 40 m upstream of the Leffel wheel to supply a more constant head of water for the hydroelectric turbine. The cylindrical dam wall is of a type that was built for small-town water supplies between 1896 and 1908 by the Public Works Department (NSW), and is believed to be the last of its type built.

The Leffel hydroelectric turbine was replaced with a newer dynamo in 1916 at a location one kilometre downstream of the dam wall, a system that is still in use today. A 10 m high dam wall retains water in the Lake, which currently covers an area of approximately 4000 m². The Lake is fed by: Camp Creek from the south, Surveyors Creek from the west, and the Jenolan River from the north.



Building on the Jenolan River leffel wheel installation. Photo: JCH&PS collection

The engineering structures around the Lake include DeBurghs Bridge, the curved masonry dam wall that retains the Lake, and a trout pond. DeBurghs Bridge is an arched limestone road bridge, constructed in 1896 to span the Jenolan River and provide visitors with easy and constant access to the Grand Arch and the cave systems.

At the foot of this bridge is a small reservoir, created in the late 1880s from the resurgence of the Jenolan River to provide a water supply for the water-driven Leffel wheel, a hydroelectric turbine generator (located 180 m downstream of the Jenolan River Spring).

This is thought to be the first hydroelectric system built in Australia and supplied the Jenolan Caves with its electricity from 1889 until 1916.

A trout pond, consisting of a low masonry wall and fish ladder below the wall that is filled by flow from the hydroelectric plant was built in 1906 in the hope of attracting sport fishermen to the area. As with the hydroelectric system, the fish stairs at the trout pond are believed to have been the first of their kind built in Australia.

REFERENCES:

The Blue Lake Management Plan JCRT 2006.
The Auxiliary Precincts Jenolan Caves Reserve Conservation Plan (Built Environment) Supplementary Volume 1988.

*This article was first published in *Binoomea* – the Newsletter of The Jenolan Caves Historical and Preservation Society.

