

ICONIC BLUE LAKE – HYDROGEOLOGICAL WONDER

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The Blue Lake is located on the edge of a city named after the local volcano and should be considered as one of Australia most unique hydrogeological wonders.

Hydrogeological Wonder

The hydrogeological wonder that is the Blue Lake has many unique features. It is a window into the unconfined aquifer of the region, has storage of about 30,000 megalitres and has the most brilliant unique colour change twice a year.

Through the winter months the lake is a dull grey colour, but as soon as the weather starts to warm, it undergoes a spectacular change to vivid cobalt blue and holds this until the air temperature begins to cool again in April.

While many Blue Lakes exist in the world, this lake stands out because of the unique colour change which for many years kept many people theorising as to what may be the cause. Some of these theories are quite humorous. Science has now explained the change mechanism; however the local tourist bodies would rather explain how the colour change is still a mystery.

Legend also held that the lake was about 200 metres deep after some original rope depthing in the late 1800's.

The Peoples Hydrogeological Wonder

The Blue Lake along with the volcanic crater has had a human connection since its formation, as it has been part of the local Buandig (also known as Boandik) Aboriginal dream time legend.

This lake plays a wonderful part in thousands of people's lives. Firstly for such a unique geological structure, it is on the doorstep of a city of about 30,000 people. Other Blue Lakes in the world, whilst very beautiful are quite often removed from population centres and do not play unique roles in peoples lives.

This lake has a walking path which sees hundreds of people walk or jog around it every day as part of fitness routines. Additionally it has a strong social function with many of the morning walker's stopping at the tourist centre for a coffee after the walk. These walks/ runs are very relaxing as at so many parts around the lake the beauty of the whole crater is viewed.

Tourist Hydrogeological Wonder

The lake is appreciated by so many people in Australia but it also receives many thousands of international visitors. As part of the Kanawinka Geopark it forms part of Australia's first geopark and because it is a part of the global network, it is promoted internationally both in Europe and Asia.

It has appeared on many television shows related to tourism and children's education.

Geological Wonder

As a geological wonder the Blue Lake:

- Is one of Australia's most recently formed volcanoes with an age of about 28,000 years.
- Formed during Australia's last ice age and the lake was originally dry as the water levels were 100 to 150 metres lower than today.
- Formed on a fault upon which the volcanic pressure exited through.
- The lake has a maximum depth of 72 metres, a circumference of 3.75 kilometres and a water surface area of about 60 hectares.
- It has a unique colour change related to temperature and water purity.
- It has different water qualities to the surrounding unconfined aquifer, of which it is a part.
- A little known fact is that it may have originally been a dual crater.

Research Wonder

Studying the lake has provided gainful employment to at least two PhD students, along with CSIRO and government researchers. But still it refuses to give up all its secrets

Water Supply Wonder

The Lake is the municipal water supply to the people of Mount Gambier. It provides on average about 3,700 million litres of water each years from a reservoir of about 30,000 million litres. It recharges its volume from groundwater storage about every 8 years.



