

## The Great Zig Zag

location Off Bell's Line of Road, near Lithgow,  
New South Wales.

owner Zig Zag Railway Co-operative

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the plaques

types **National Engineering Landmark  
and Information Plaques**

location On a sandstone pedestal beside the  
Middle Road of the Zig Zag.

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When constructed, the Great Zig Zag was regarded as one of the wonders of the world. Overseas visitors came to view it, and it was a favourite picnic spot for organised sightseeing parties. Construction of the railway line over the Blue Mountains was fraught with difficulties, including financial stringency. To contain costs the line was constructed with steep grades and sharp curves, with ascent of the east and west escarpments being by zig zags instead of the tunnels originally proposed.

The Zig Zag is now a tourist railway.

plaque text

### **The Great Zig Zag, Lithgow**

The Railway Zig Zag is a series of reversing ramps used to avoid very steep grades. John Whitton, Engineer-in-Chief NSW Government Railways 1856–90, chose this as the economical method for the descent from Clarence to Lithgow. Built during 1866–69 by Contractor Patrick Higgins, it involved massive rock excavations, a tunnel and three stone arch viaducts. During its 41 years of operation it accelerated the development of western New South Wales and achieved world renown as a major engineering work.

Dedicated by The Institution of Engineers, Australia, 1992.



### **John Whitton (1819–1898)**

*Whitton served his apprenticeship in Britain. When being recruited as Engineer-in-Chief of the Railways of NSW, he was described as “a thoroughly practical engineer of considerable attainments, a gentleman of unquestionable principle and integrity”.*

*During Whitton’s term, the railways grew from 37km to 3494km of high-standard line. Whitton succeeded despite persistent opposition from politicians and others, who sought economies through low standards and outdated technology. Foreseeing problems different gauges would produce, Whitton advised the Government to convert NSW’s then 37km of track, to the gauge used by Victoria and South Australia. However, in this he was unsuccessful.*

*Whitton retired in 1890.*

