

## Monitoring Surveys on the Illawarra Railway

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### ABSTRACT

*The Illawarra Railway, south of Waterfall and as far south as Austinmer, was constructed in country that is generally rugged and unstable. The railway winds its way through the Royal National Park through some deep cuttings, high embankments and tunnels before emerging at Stanwell Park where it hugs the geologically unstable coastal area beneath the Illawarra escarpment. There has been a long history of movement of the infrastructure which was exacerbated by the engineering works associated with the electrification of the railway in the early 1980s. Since that time, multiple sites have required survey monitoring. Most have had extensive and expensive remedial works carried out, but to this day there are still many sites that are regularly monitored to detect possible embankment movement and to ensure the risk is properly managed. This presentation will outline the types of locations, the monitoring techniques involved and how the techniques, equipment used and documentation have evolved over the last 30 years.*

**KEYWORDS:** *Illawarra, monitoring, history, current.*