

CASE STUDY

Murphy's Bridge



Overview

Located approximately 279 km south of Sydney.

- Semi-integral bridge
- Dimensions: 5-span, 68.5 x 4.8m
- Client: Eurobodalla Shire Council
- Contractor: HD Civil

About

During the 2019-20 "Black Summer" bushfires, the Eurobodalla Shire was severely impacted, with up to 80% of the area affected by the fires.

Unfortunately, this resulted in significant damage or complete destruction of 18 bridges in the area, including Murphy's Bridge. The bridge is a critical crossing point that spans across the Tuross River on Eurobodalla Rd, connecting the small town of Cadgee with the greater Eurobodalla area.

The loss of Murphy's Bridge left locals stranded, with limited options to reach the other side of the river. One option was to kayak across the freezing waterway, which posed a risk for adults and children. The other option was to take a 64km detour, which was not only inconvenient but was also costly and time-consuming.

Challenges

Unfortunately, extreme flooding events throughout 2020-2022 hindered the progress of the bridge works and temporary access. Despite efforts to erect a temporary track over the river in January 2020, it was quickly washed away a month later due to heavy rain and flooding. These events caused significant delays for the contractors, who were interrupted multiple times during piling and installation.

This delay caused frustration and inconvenience for the local community, who were left without a crucial crossing point for an extended period.

Results

With the help of the innovative InQuik® bridge system, families and the Eurobodalla community have successfully rebuilt physical and emotional connections.

The Murphy's Bridge is capable of withstanding high water pressure, but it also maintains its strength, even when submerged by the river. As a result, it has played a vital role in reconnecting the community by providing safe access to essential services and restoring a sense of security.

Key Points

- By raising the bridge level and using an integral design, the InQuik® System enhances flood protection and increases the structure's resilience in the face of heavy loading, flooding, and other disasters; even when submerged by the river.
- Eurobodalla Council installed the InQuik® System using local plant, materials and labour, ensuring funds and work were retained with the local community.
- The InQuik® bridge is a reliable and cost-effective investment for the community, designed to last for a century with minimal to zero maintenance, providing long-lasting benefits for generations to come.
- It meets both T44 and SM1600 design standards, thus meeting the current and future transport needs on behalf of the community.

How we helped

The Eurobodalla Council has made a commitment to ensure that their bridge infrastructure is suitable to handle future extreme weather events. The Director of Infrastructure has stated that their goal is to “build back better” and keep communities linked together, as outlined in the Council's Infrastructure Resilience Plan.

To achieve this goal, the Council has chosen to use the InQuik® bridge, a more durable and resilient alternative to the previous timber structure.

The structure will provide a critical link between the town of Cadgee and the greater Eurobodalla area, allowing residents to access essential services and maintain their connections with one another, even through extreme weather events.

