

SMITHS ROAD BRIDGE



VALUE \$1.9M

YEAR 2014

DURATION 9 months

CLIENT ACT Government

REFEREE Steve Baker (SMEC)

PHONE 02 6234 1955

SUMMARY

Smiths Road Bridge over the Gudgenby River fell victim to flooding in December 2010, collapsing one pier and 2 spans of the structure and isolating the local community. Complex was engaged to construct a replacement 32m single span bridge in a new alignment over the river.

Due to load limits imposed on surrounding bridges, heavy vehicle access was extremely restricted, requiring the post tensioned girders to be cast on site and placed into position using a complex dual crane lift operation. The lifting methodology was modelled in 3D to analyse the procedure and coordinate on site processes to the construction team. The scope of works included removal of sections of the collapsed bridge from the river bed and dismantling of a Bailey Bridge, setup as temporary access for local traffic. Approach road pavements and geometry were upgraded during the project and significant scour protection added to protect river banks. Located upstream of the Murrumbidgee River drinking water catchment, protection of the waterway was critical during construction.

Complex implemented a number of innovative controls and monitoring systems to ensure protection of the waterway, including filling of sandbag cofferdams with on-site sand won from excavations at the new abutments.

PROJECT FEATURES

Working within a drinking water catchment	Post tensioning
Alternative tender bridge design proposal	Road closures and detours
Challenging environmental conditions (incl. facilitating wombat relocation)	Complex staging
Working in remote location	Coffer dam construction and dewatering
32 metre cast on-site girders	Liaison with multiple stakeholders
Complex dual crane lift operations	Rock scour protection
Piling and mass fill concrete footings	Demolition of existing collapsed bridge
RMS B80 spec concrete placement	Removal of temporary bailey bridge

AWARDS

2015 MBA Awards - Judges Commendation