

SCRIVENER DAM ANCHOR BOLT REMEDICATION

VALUE	\$4M
YEAR	2014
DURATION	14 months
CLIENT	National Capital Authority
REFEREE	Chris Leah
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SUMMARY

Scrivener Dam, impounds the Molonglo River to form Canberra's iconic Lake Burley Griffin. The lake constitutes one of Canberra's key landscape features in accordance with Walter Burley Griffin's vision for the city.

Construction of the dam commenced in 1960 and was completed in 1964. During the dam's 2011 annual safety and surveillance inspection, corrosion to the original anchor bolts was discovered, resulting in a proposal to install new anchorage to each of the gate hinges. The Scrivener Dam Anchor Bolt Remediation project involved the replacement of 120 gate hinge anchor bolts across the Dam's overflow 'fish-belly' flap gates with 60 modern equivalents.

The new 6m anchors were installed to 0mm in 3000mm straightness and 1mm in 500mm direction/alignment tolerance. Core drilling operations were particularly complex due to overhead constraints in the work areas. Each core barrel required splicing in 1.2m lengths, introducing a weakness into the core barrel with potential to affect straightness and alignment.

The project was delivered on time and significantly below initial budget expectations.

PROJECT FEATURES

Significant temporary works design, fabrication and installation, including; cantilevered upstream walkway, custom davit arms, downstream working platforms and trolleys

Safety management whilst working on an operational dam

Environmental management, including facilitation of fish movements

Innovative waste water recycling system

Lead paint removal

Complex core drilling to fine tolerances

Match fit bolt box steel fabrication

High strength epoxy grouting

Post tensioning

OFSC safety audit

AWARDS

2015 MBA Earth Awards – Winner
2015 CCF Earth Awards - Winner