LAKE & LAND
CIVIL CONSTRUCTION & EARTH ENGINEERING

JACKSONS GULLY CULVERT
GOLDEN POINT ROAD
BLACKWOOD, VICTORIA



PROJECT OVERVIEW

DESIGN AND CONSTRUCT, MAJOR CULVERT,
GOLDEN POINT ROAD, TOWNSHIP OF BLACKWOOD

CLIENT: THE MOORABOOL SHIRE

THIS PROJECT RECENTLY WON THE CIVIL CONTRACTORS FEDERATION '2013 EARTH AWARD'

LAKE & LAND PTY LTD

JACKSONS GULLY CULVERT, GOLDEN POINT ROAD, BLACKWOOD, VICTORIA

TASK

- Replace existing Corrugated Iron Culvert with concrete culvert

OBJECTIVES

- Maximise flow under roadway
- Minimise Vegetation removal,
- Minimise Traffic Disruption,
- Minimise sedimentation transport
- Build a fish Ladder
- NO Harm to anyone
- Use the existing Corrugated steel pipe as a sleeve for the concrete pipe
- Realignment of the entrance of the culvert to encourage flow
- NO vegetation removal
- Constructed innovative fish ladder using mussel Spat Rope

PROJECT MANAGEMENT

PROJECT PLANNING AND MANAGEMENT

- Lake & Land Pty Ltd - Construction
- Alex Brunacci - Design Concept/ Project Management
- Tim Hamilton – Structural Design
- StQuintin Consulting – Proof checking
- Driscoll Engineering – Superintendent for Moorabool Shire Council
- Melbourne Water - Approval Authority
- DSE – Vegetation Authority
- Cost $240K.
- Awarded August 2012
- Concept Design September 2012
- Works Approval October 2012
- Works Commenced November 2012
- Completed December 2012

ENVIRONMENTAL AND SOCIAL MANAGEMENT

MANAGEMENT OF ENVIRONMENTAL CONSTRAINTS AND ENHANCEMENT

- Project specific environmental management systems and plans.
- Development of a Site Specific Environmental management plan.
- Successful implementation and completion of project within nominated environmental guidelines.
- No trees removed or trimmed to undertake works.
- Use precast concrete where possible so as to minimise placement of concrete in waterway
- Reuse all excavated materials.
- Monitor environmental systems by Melbourne water.

TECHNICAL COMPLEXITY

TECHNICAL AND COMPLEX ASPECTS OF THE PROJECT.

- Trenchless Excavation
- Self-levelling pressure Grouts
- HDPE Skids
- Natural Rock construction of Fish ladders in waterways
- Use of mussel spat rope

ACHIEVING TIMING AND BUDGET TARGETS

- Original plan was to be completed all civil works by December 2012.
- Project approval application made to Melbourne water October 2nd 2012
- Conditional approval received from Melbourne water on 21st November 2012.
- Conditions on the permit to be fulfilled did not enable us to commence until after 4th December 2012.
- Pipes were installed early December precast pit and headwalls mid-December.