

## Splitters Creek Heales Road box culvert fishway

PS06



(Photo: Ross Kapitzke 16/01/08)



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(Photo: Ric Fennessey 2008)

- Heales Road box culvert fishway is located on Splitters Creek – a tributary of the Burnett River near Bundaberg
- Splitters Creek provides high value fish habitat for the lower Burnett River system and has up to 50 native freshwater fish species
- the crossing has been a barrier to fish migration to upstream habitat – the fishway was developed in 2008
- the project was developed through collaborative arrangements with DPI Fisheries and Burnett Mary Regional Group

### CLIENT AND PARTNERS



Department of Primary Industries and Fisheries



### PROJECT OBJECTIVES

- provide for upstream fish passage at crossing
- retain structure integrity and minimise disturbance
- enhance ecological function of stream corridor
- provide demonstration site for community

### SCOPE OF WORK

- concept design and evaluation of options
- design of fishway facilities
- collaboration on construction of fishway facilities
- stakeholder collaboration and extension

### CROSSING DESCRIPTION

- 3-cell 2100 mm x 1800 mm box culvert 6 m long
- upstream and downstream culvert wingwalls
- low level timber bridge girders at culvert outlet
- low bitumen pad at outlet raises low flow levels

### MIGRATION BARRIERS

- high velocities at culvert outlet in medium flow
- shallow water depths in low flow with pad removed
- high velocities in culvert barrel and at culvert inlet
- regular culvert cross section and lack of rest place

### MITIGATION MEASURES

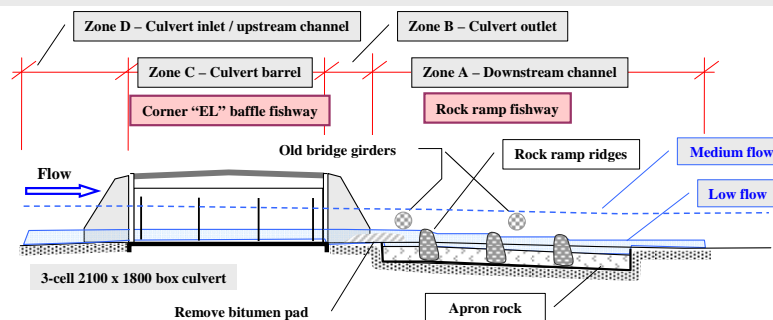
- Zone A – rock ramp fishway / retain bridge girders
- Zone B – remove bitumen pad
- Zone C – corner “EL” baffle fishway

### OTHER FEATURES

- access for hydraulic and biological monitoring

### REFERENCES

- Kapitzke 2008, *Splitters Creek Heales Road crossing fish passage – Design report*
- see <http://www.jcu.edu.au/fishpassagedesign/>



## Fish passage planning and design for small waterway structures

JCU School of Engineering and Physical Sciences provides consulting and R & D services in fish passage planning and design, and development of fishway technology for small waterway structures (e.g. road culverts). Fish passage facilities (e.g. baffles, ramps) are designed to meet multipurpose requirements, overcome hydraulic barriers (e.g. high velocities, water drop), and mitigate connectivity impacts. Scope of services includes catchment prioritisation, corridor scale planning, site design and evaluation, product development.

### CONTACT

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