

## Offset Baffle fishway for box culverts, aprons and channels

DS01

### Fishway configuration and suitability (Source: Kapitze 2010, Fishway planning and design guide)

- series of low baffles fixed to culvert base (perpendicular baffle; oblong baffle at 30° to flow)
- suited to relatively shallow high velocity flow in culvert barrels, on inlet and outlet aprons, and in channelised waterways where large velocity reductions are required for fish passage
- applies to culverts / aprons / channels or culverts with low tailwater conditions, where tailwater levels can be raised (e.g. block ramps / rock ramps at culvert outlet or downstream)
- less suited to deep slow water environments where low velocity conditions may contribute to sedimentation and blockage of the offset baffle fishway



(Photo: Ross Kapitze 05/05/10)

### Performance characteristics (Source: Kapitze 2010, Fishway planning and design guide)

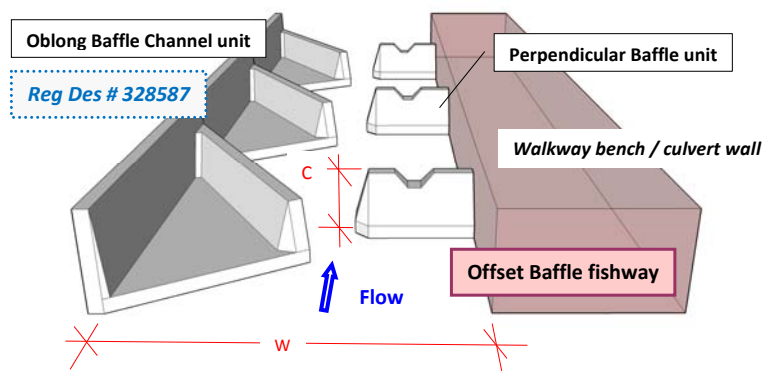
- provides for fish passage through low velocity zones, shelter areas and flow circulation for range of flows within and surcharging the baffles
- increases flow depth and provides resting pools and local higher velocity conditions to assist fish movement in a burst and rest pattern through fishway
- suits juvenile and adult native fish species with range of fish movement characteristics
- low fishway profile and flow continuity minimise resistance to flow; good self-cleaning and through-flow attributes for sediment and debris due to flow circulation and spiralling flow



(Photo: Ross Kapitze 21/05/10)

Kapitze 2010, *Culvert fishway planning and design guidelines*, available from <http://www.jcu.edu.au/fishpassagedesign/>

### Prefabricated components and fishway assembly (see product sheets for full configurations and sizes)



#### Offset Baffle fishway configurations

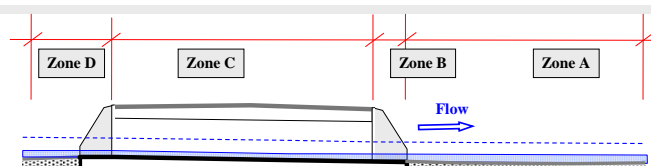
Fishway system	W (nom)	C
1200 x 225 mm	1200	225
1500 x 250 mm	1500	250
1800 x 275 mm	1800	275

#### Notes

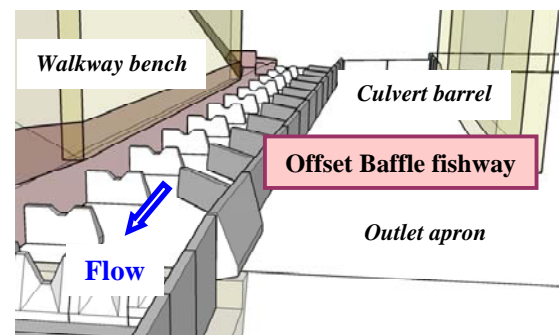
- Right hand baffle system shown – Left hand baffles are mirror image
- The Oblong Baffle Channel unit is registered under the Designs Act 2003 with Registered Design No 328587

### Application within hydraulic zones of culverts and other waterway structures

- Zone D: Box / pipe culvert inlet and upstream apron
- Zone C: Box culvert barrel
- Zone B: Box / pipe culvert outlet and downstream apron
- Zone A: Channelised waterway



Longitudinal Section: Culvert hydraulic zones



### Walaman Fishways

Walaman Fishways provide a range of prefabricated fishways for installation at culverts and other small waterway structures to overcome hydraulic barriers to fish migration, provide for aquatic fauna connectivity, and meet other multipurpose design requirements.

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