

# Pt MacDonnell Dairying Pty Ltd

## (Eight Mile Creek, SA)

Average milking herd: 700 cows  
 Type of effluent system: Mechanical separation



Effluent from the dairy shed and yard gravitates in to a trafficable sand trap.

Sand and stones fall out of solution in the trap, whilst liquid effluent and suspended manure gravitates in to a circular collection sump.  
 Circular collection sump: 90 kL capacity



When effluent in the sump reaches a pre-determined level the float switch initiates the agitator, then the sludge pump. The sludge pump transfers mixed-raw effluent from the circular sump to the Screw Press Separator (SPS).

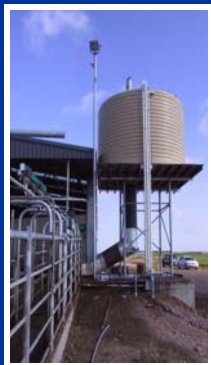
Liquid effluent is stored in an open concrete tank (180 kL) and recycled for yard floodwashing. This equates to an annual freshwater saving of approximately 39,420 kL (39.0 ML)

Surplus liquid effluent is irrigated via a Williams travelling irrigator and centre pivot. Application areas include:

- 15 ha of dry land during winter months; and
- 10 ha of irrigated land during summer months.

Nutrients captured at the dairy shed annually:

- 1,526 kg/yr of Nitrogen
- 288 kg/yr of Phosphorous
- 1,070 kg/yr of Potassium



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