

## Harvesting rainwater proves invaluable during dry times

LOCATION: Robertstown

ANNUAL RAINFALL: 250mm

FARM SIZE: 3000ha

ENTERPRISES: Wool, lambs,  
cropping, merino stud

*Constructing a polyethylene-lined catchment area to harvest rainwater for livestock has proven an excellent investment for mixed farmer, **Dale Button**. Captured water from the lined catchment runs into a dam, which is pumped to higher ground and gravitates to multiple header tanks and paddock troughs across a 400ha block on his property.*

### Why a lined catchment?

Dale's property has no access to mains water and being in a low-rainfall area, there has generally been little dam run-off in recent years. In addition, there were no longer any viable bores on his 400ha block, so he needed an innovative and cost effective water security solution for his stock.

Dale came up with the idea of a lined catchment, which he knew had been successfully implemented by several Eyre Peninsula farmers.

A lined catchment is a poly-lined catchment that runs into a dam, with rainwater being successfully captured in any rainfall (or dew) event. This has the advantage of the catchment soil profile not needing to be wetted up before water will run into a dam.



**The lined catchment situated immediately above an existing dam on Dale's property**

#### Key points:

- A poly-lined catchment captures rainwater which runs into a dam
- Captured water is then distributed to paddock troughs
- The lined catchment area is 1,200m<sup>2</sup> and cost \$11,800

## Lined catchment construction

After receiving only 142mm of rainfall in 2017, Dale 'bit the bullet' in February 2018 and constructed the lined catchment. The catchment area was 1,200m<sup>2</sup> (30x 40m) and located on a slight slope immediately above an existing dam, which holds really well.

Earthworks were initially conducted to flatten and shape the catchment area, including cleaning out the dam. Eight-metre wide poly-liner was then laid over the area (secured by truck tyres) and welded together. A cement drain pit was then installed (at the catchments lowest point), along with storm water pipe to enable the flow of water from the catchment into the dams existing cement causeway. Finally, a 1.2m high cyclone fence was erected around the catchment area to keep stock and wildlife out. All up the project cost \$11,800:

- Earthworks - \$2,500
- Poly-liner (8mx200mx1.8mm roll) & welding - \$8,300
- Fencing & piping - \$1,000

## Harvesting rainwater

For every one mm of rainfall, one litre is collected per square metre. Therefore in an average rainfall year (250mm) the lined catchment (1,200m<sup>2</sup>) will capture 300,000 litres.

Dale's investment in a lined catchment has proven invaluable, simply because it has allowed him to continue to run stock on the block. Even in the drought years of 2018 and 2019, the catchment ensured water was successfully captured, compared to other dams on the property, which remained mostly dry.

Given the likelihood of increased drier and variable seasons in the future, the value of the lined catchment to deliver a sustainable water supply will continue to be realised.



**Storm water pipe enabling water flow into the dam causeway from the lined catchment**

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