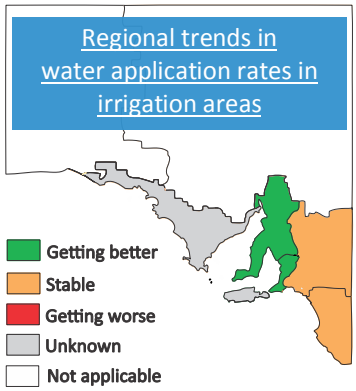
2016 State Report Card

Is irrigation efficiency improving in agricultural areas?

Our irrigated crops and livestock products, worth about $1.8 billion in 2015, use about 69 per cent of the total water consumed in South Australia. Just over one third of our farms rely on irrigation to grow pastures for livestock, grapes, fruit or vegetables. Efficient irrigation reduces fertiliser and sediment runoff, soil salinity impacts, production costs and provides more flexibility to rotate crops.

Soil type, irrigation method, evaporation rates and the timing of irrigation influence the amount of water applied to crops. For example, upgrading from sprinkler to drip irrigation can save about 2.5 million litres per hectare of grapevines or citrus trees. Our State NRM Act and water allocation plans allow farmers to sell their water and this market based system helps to ensure that the most efficient farmers have access to all of the water they need.

This report card tracks the amount of water applied per hectare, and trends in methods of irrigation. This report card covers the NRM regions in the agricultural parts of South Australia (see map on right). The arid NRM regions have little or no irrigated areas.



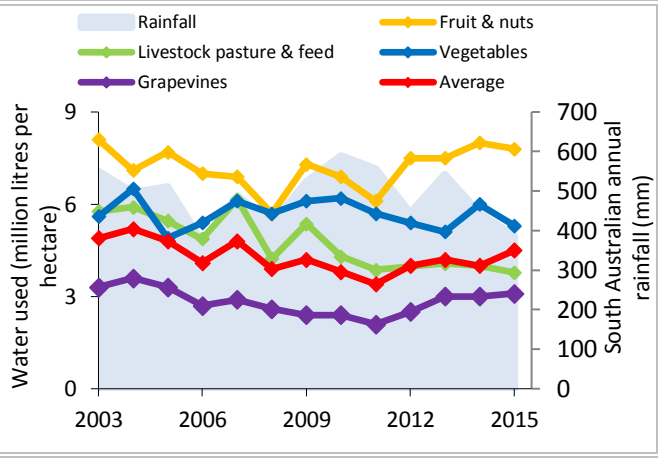
State target

Maintain the productive capacity of our natural resources

Trend (2003–15)	Getting better	On average, the amount of water applied per hectare has decreased by almost 1.7 per cent each year since 2003

Different crop types have different water needs and these vary depending on the soil type and rainfall received. 2015 was the driest year since 2006 and the average water use has increased slightly. The long term trend in water application still indicates improvement since 2003. In 2015, about 158,250 hectares were irrigated in South Australia and the average irrigation rate was about 4.5 million litres per hectare (graph on right, red line).

Big improvements are apparent in the irrigation of livestock pastures – water applied per hectare decreased by 4 per cent each year since 2003 (graph on right). Over the same period, water applied per hectare to grapevines decreased, and was stable for vegetable, fruit and nut crops.

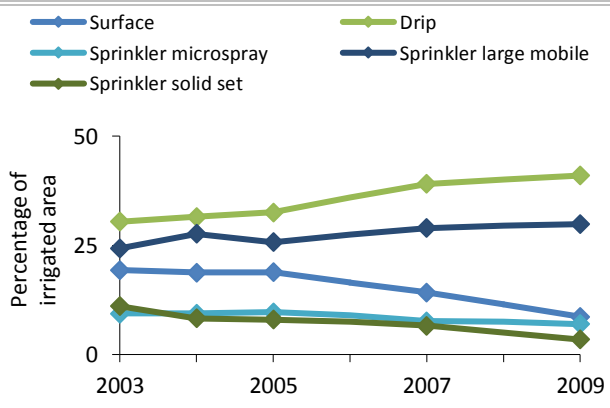


Where we are at (2015)	Good	Irrigation efficiency has improved since 2003

Energy, labour, crop type and set up costs influence the irrigation decisions of farmers, but irrigation efficiency continues to improve.

Trends in irrigation methods show how our farmers are improving irrigation efficiency. Drip irrigation, which is typically the most water efficient, is the most common method and its use has increased, while surface irrigation (also called flood) and solid set sprinklers, which are typically the least efficient methods, have decreased (graph on right).

Governments and NRM boards work with farmers to improve irrigation efficiency by demonstrating the benefits and providing financial incentives to upgrade to more efficient systems, for example through the South Australian River Murray Sustainability Program.



Reliability of information	★ ★ ★ ☆ ☆	Good

Further information: Technical information for this report card, Water use in South Australia, WaterConnect

Government of South Australia