2014 Regional Snapshot

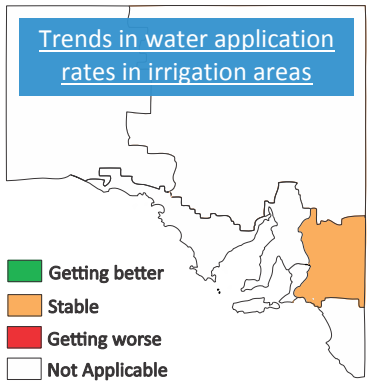
Is irrigation efficiency improving in agricultural areas?

South Australia's irrigated crops and livestock products, worth about $1.4 billion in 2012, use about 60 per cent of the water we use in the state. Almost half of the farmers in the SA Murray-Darling Basin NRM region rely on irrigation to grow pastures for livestock, grapes, fruit or vegetables. Efficient irrigation reduces fertiliser and sediment runoff, soil salinity, and provides more flexibility to rotate crops.

Soil type, irrigation method, and the timing of irrigation influence the amount of water applied to crops. By matching these to the needs of each crop, farmers maximise production while applying less water. 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 use more water.

This report tracks the amount of water applied per hectare, and trends in methods of irrigation.

Trends in water application rates in irrigation areas



State target

Maintain the productive capacity of our natural resources

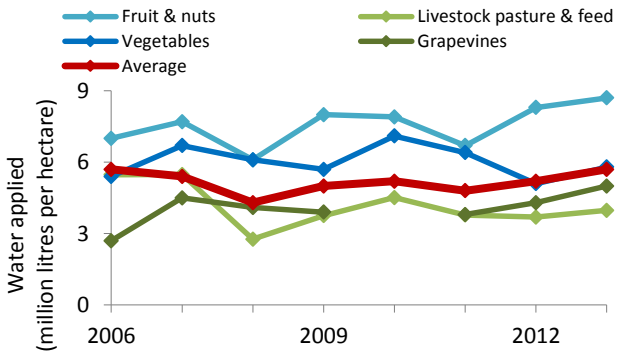
Trend (2006-13)	Stable	Water applied per hectare has remained stable

Different crop types have different water needs and these vary depending on the soil type and rainfall (see graph on right).

In 2013, over 60,500 hectares were irrigated in the SA Murray-Darling Basin NRM region. The average irrigation rate was about 5.7 million litres per hectare (see graph on right, red line). The amount of water applied per hectare was relatively stable between 2006-13.

The greatest improvement has been for irrigated livestock pastures– water applied per hectare decreased by nearly 4 per cent each year since 2006. Over the same period, water applied per hectare to grapevines increased by about 5 per cent each year since 2006.

More detailed water use information is collected in some irrigation areas from surveys of irrigators.



Where we are at (2013)	Good	Irrigation efficiency improved in 2013

Energy, labour and set up costs influence the irrigation options available to farmers, but irrigation efficiency continues to improve.

Surveys and annual reports of the Mallee, Angas Bremer and River Murray prescribed areas show that drip irrigation, which is typically the most efficient method of irrigation, is the most commonly used method. For example, annual surveys from the Angas Bremer indicate that over 60 per cent of the irrigated area is irrigated by drip systems.

Governments and NRM boards work with farmers to improve irrigation efficiency by demonstrating land management benefits and providing financial incentives to make it increasingly attractive. For example, the On Farm Irrigation Efficiency Program helps farmers in the Murray-Darling Basin upgrade irrigation systems to improve irrigation efficiency, with a requirement that some of the water saved is returned to the environment. The South Australian River Murray Sustainability Program also contributes to regional development, research and innovation in the NRM region.

Reliability of information	★★★★☆	Very Good

Further information:
Technical information for this report, Water use in the SA Murray-Darling Basin NRM region

This report is a work in progress. As resource monitoring improves, so too will our ability to describe trends in condition.

Government of South Australia