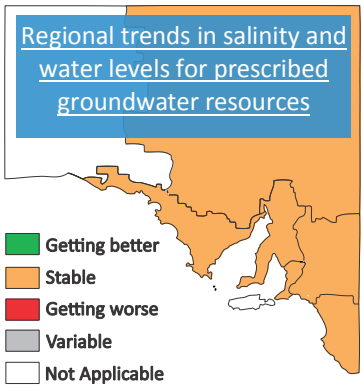
2014 State Report Card

Are the water levels and salinity of our prescribed groundwater resources improving?

As the largest freshwater resource in South Australia, groundwater is vital for our agriculture, mining and manufacturing industries. It also provides us with town water supplies and sustains a range of ecosystems.

Groundwater is mostly recharged when rainfall percolates down through the soil to the watertable. Groundwater levels naturally change in response to seasonal rainfall, droughts and climate change. Excessive use of groundwater can cause levels to fall and salinity to increase, which can impact the communities, industries and ecosystems that are dependent on groundwater, particularly if climate change impacts rainfall patterns and reduces the rainfall needed to recharge groundwater.

This report card summarises whether changes in groundwater levels and salinity of prescribed groundwater resources are within acceptable limits based on the needs of the primary user and the natural variation of each resource. This report card should be read alongside report cards on the sustainable use of ground water and surface water resources.



State target

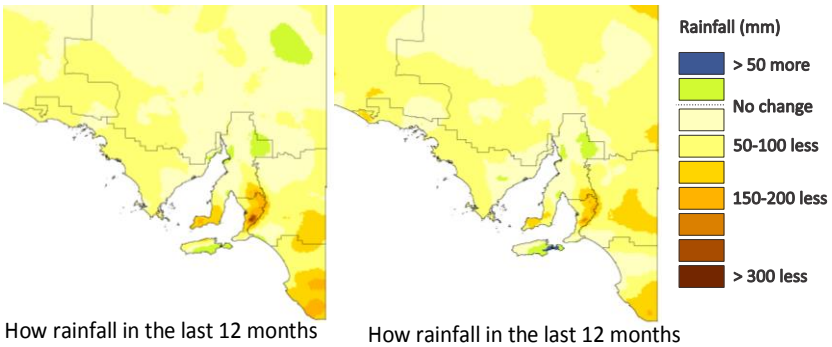
Maintain the productive capacity of our natural resources

Trend (2010–13)	Stable	Salinity and groundwater levels are within acceptable limits in most of our prescribed groundwater resources

Groundwater levels and salinity are largely driven by rainfall and water use and are therefore naturally variable. Rainfall in 2013 was less than long term averages (maps on right). Water use in 2013 was therefore expected to be higher.

Since 2010, trends in the salinity and water levels of our prescribed groundwater resources have been used to asses the status of groundwater resources. Salinity and groundwater levels have varied, but they are within acceptable limits in most of our prescribed groundwater resources (map above).

Rainfall anomaly maps:



How rainfall in the last 12 months compares to the last 113 years

How rainfall in the last 12 months compares to the last 10 years

Where we are at (2013)	Good	Most of our groundwater resources are within acceptable limits

There are 35 prescribed groundwater resources (aquifers) within 19 prescribed areas in our state. Based on changes in salinity and water levels between 2012 and 2013, the status of 34 of our groundwater resources is good. Most of these resources have stable or improving water levels and salinity. Some of the resources have experienced gradual declines in water levels or increases in salinity , but these changes are still within acceptable limits based on the needs of the primary users and the natural variation of each resource. If these trends were to continue for more than 15 years, it is possible that these resources will not be suitable for their current purposes (e.g. drinking water and/or irrigation). Currency Creek, Polda, and Tatiara resources are being monitored closely because they have elevated salinity or declining groundwater levels.

The 2013 status of the Kangaroo Flat groundwater resource in Adelaide and Mount Lofty Ranges NRM region is considered fair and it is being monitored closely because it has elevated salinity. If this trend continues, the groundwater may not be suitable for its current purpose within 10 years.

Managing our groundwater resources relies on consistent and timely measurements of groundwater levels, salinity and water use.

Reliability of information	★★★★☆	Very Good

Further information: Technical information for this report card and reports on the status of South Australian water resources

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