

South Australian Statewide Natural Resource Report Cards



Government of South Australia
Department of Environment,
Water and Natural Resources



Report Card History

- 2012 State NRM Plan
 - ‘Develop a reporting framework’
- 2014 report cards release
 - 56 state-wide based on NRM Plan targets
 - 242 regional scale
- 2015 review of reporting framework
- 2017 report card updates

<https://data.environment.sa.gov.au/NRM-Report-Cards>



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State-level report card

- Single A4 page
- Example:
 - What is the ecological condition of rivers and streams?
- Information on:
 - Current condition
 - Change over time (trend)
 - Reliability



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Report Card

Freshwater

2014 State Report Card

What is the ecological condition of our rivers, streams and drains?


Our rivers, streams and drains provide water for agriculture and domestic use, habitats for native plants and animals, places for recreation and are culturally important for Aboriginal people. Aquatic plants and animals function together as ecological communities and improve water quality in rivers, streams and drains. These ecosystems are impacted by nutrients, sediments and pollutants in agricultural runoff and wastewater discharges. Feral and domestic animals, which graze and trample vegetation, and reductions in flow, due to dams, weirs, droughts, [consumptive use](#) and weeds, also impact rivers, stream and drains.

The Environment Protection Authority has assessed the condition of streams and drains in South Australia based on water quality and the condition of invertebrate and plant communities. Assessments have been made at 348 sites, across 19 catchments, in all of the NRM regions except Alinytjara Wilurara. This report card summarises the information by catchment basins.

This report card does not address the condition of wetlands or the River Murray. The [water quality](#) and [ecological condition](#) of the River Murray are reported separately.

State target

Improve the condition of terrestrial aquatic ecosystems



Regional trends in the ecological condition of rivers, streams and drains

- Getting better
- Stable
- Getting worse
- Unknown

Trend (2008–13)	Unknown	River, stream and drain condition was assessed between 2008–13. A trend will be available in future versions of this report card.
<p>Because most sites have only been assessed once, recent trends in river, stream and drain condition are not known for any NRM region (map above). Future monitoring will determine trends in the condition of our rivers, streams and drains.</p> <p>The Government of South Australia and the regional NRM boards are investing to improve water quality and the condition of invertebrate and plant communities. Management focuses on controlling feral animals and weeds, fencing stream edges, working with land holders to reduce nutrient and sediment runoff and, where possible, restoring more natural flows.</p>		
Where we are at (2013)	Fair	Substantial investments are required over many years to improve water quality, and the condition of aquatic invertebrate and plant communities

On average across the State, our rivers, streams and drains are in fair condition (map on right).

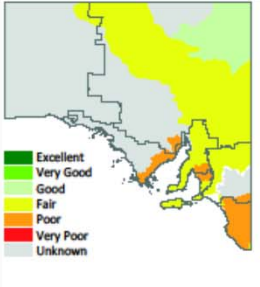
The catchments for our rivers, streams and drains are in poor or fair condition in the Adelaide and Mount Lofty Ranges, Eyre Peninsula, South East, Northern and Yorke, Kangaroo Island and SA Murray-Darling Basin NRM regions (map on right). The catchments in the SA Arid Lands NRM region are in fair or good condition.

Rivers, streams and drains that are in poor condition typically have elevated levels of nutrients, salt and fine sediment as well as sparse vegetation and abundant weeds along their banks.

Our use of aquatic environments for economic and recreation purposes has affected the features that make them so attractive and valuable. In some areas, consumptive use of [surface water](#) and other impacts are at critical levels, and these are intensified during droughts. It is crucial that we continue to improve our rivers, streams and drains.

Reliability of information

★★★★☆ Very Good



- Excellent
- Very Good
- Good
- Fair
- Poor
- Very Poor
- Unknown

Further information: [Technical information for this report card](#) and [EPA Aquatic Ecosystems Water Quality reports](#).

This report is a work in progress. As resource monitoring improves, so too will our ability to describe trends in condition. Licensed under [Creative Commons Attribution 3.0 Australia](#). © Crown in right of the State of South Australia.



Technical information

Freshwater

Technical Information

What is the ecological condition of creeks, streams and drains?

This document describes the sources of information, advice, methods, indicators and data processing procedures used to develop the reports. Reliability of data, as well as metadata attributes, are also described.

State NRM Plan Guiding Target:
Improve the condition of terrestrial aquatic ecosystems.

State NRM Plan Representative Measure:
Trends in the condition of rivers, streams, wetlands and drains.

Data collection period:
2008 – 13.

Expected frequency of reporting:
Annual. Repeat assessments of individual sites may occur each 5 years in the future.

Data sources:
Condition of streams, creeks and drains – EPA (South Australia).

Indicators used:
Condition of creeks, streams and drains, based on macroinvertebrates, plants and water quality.

Methods of data collection and processing:
Between 2008 and 2013, 403 sites in creeks, streams and drains were sampled for macroinvertebrates, water quality and plants. Data is collected at each site and it is used to support independent assessments of each site by an expert panel. Assessments are made to classify each sampling site into one of the six categories summarised below and on the [EPA website](#). Site assessment scores were averaged within each basin. Each basin score was weighted by basin area and then averaged within each NRM region. The NRM region scores were averaged to provide a state condition score.

Note: 17 sites were visited twice between 2008 and 2013, for which the most recent data was used in the data summary. There were insufficient sites with repeat assessments to determine trends in ecological condition of creeks, streams and drains at the state or regional scale.

Details of location and specific scores received for individual streams and drains can be obtained from the [EPA website](#) under 'Creeks and Rivers'.

Categories for stream and drain condition include:


Excellent: Natural or unaffected by human activity, with extensive areas of remnant native vegetation in the catchment area. It is possible some creeks and lakes in remote areas of the State may be given an Excellent rating, however the vast majority are likely to be affected by humans in some way.

Very Good: Minimal changes in biological condition and the way the ecosystem functions as a result of human settlement. These sites continue to provide a healthy environment for a natural diversity of animal and plant life.

Good: Often the best we can expect given significant changes to the natural landscape after more than 170 years of European settlement. Although changes to the environment and its animal and plant life are likely to be relatively minor, there will be clear, emerging signs of human impact, which could lead to further decline.

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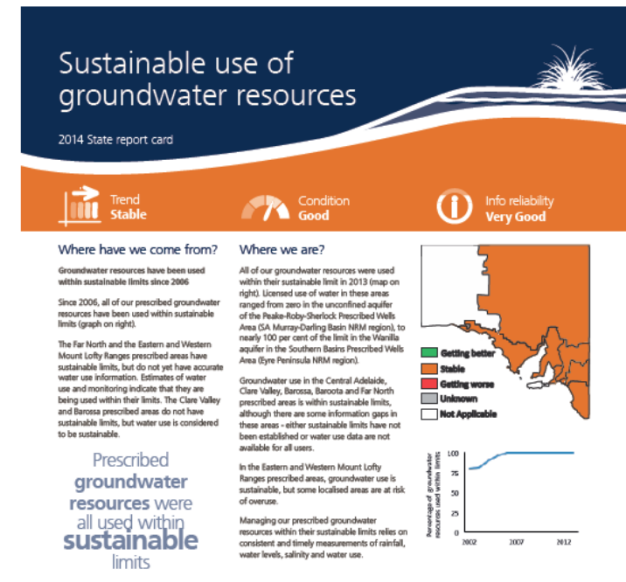
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Future

- Overhaul
 - Aesthetics
 - Targets (changing NRM plan)
- Open
 - Data
 - code
- Environmental-economic accounts



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