

2014 State Report Card

Is the ecological condition of the River Murray improving?

The River Murray provides water for human communities, agriculture and fishing, and supports cultural heritage, recreation and tourism. The river also provides habitats for native plants, including floodplain trees, and animals such as birds, fish, frogs and invertebrates. The plant and animal communities depend on river flows and good water quality for their survival.

Historically, our demands for water and the effects of periodic droughts and climate change have altered the natural flow regime, water quality and the ecology of the river.

The [Government of South Australia](#), [SA Water](#), the [South Australian Murray-Darling Basin NRM Board](#), [Murray-Darling Basin Authority](#) and [Commonwealth Environmental Water Office](#) manage water use and flows to protect and restore water dependent ecosystems and meet the needs of communities and industries. This report should be read alongside others on the [flows](#) in the River Murray, [water quality](#) and [salt flushed](#) out of the Murray.

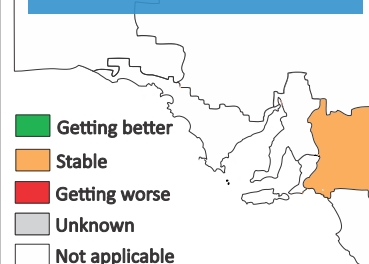


State target

Improve the condition of terrestrial aquatic ecosystems



Trends in the ecological condition of the River Murray



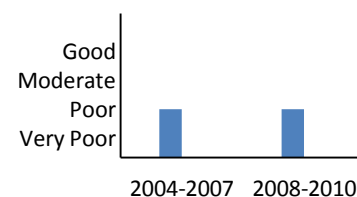
Trend (2007–10)

Stable

The condition of the Murray, based on the diversity of plants, fish and other aquatic animals, was stable between 2004–07 and 2008–10

The Sustainable Rivers Audit [assessed](#) the condition of the Murray in 2004–07 and 2008–10, during the Millennium Drought (1997–2010). The River Murray in South Australia remained in a stable, but poor condition (graph on right) based on the number and species of plants, fish and other aquatic animals (macroinvertebrates), relative to their pre-European diversity. More comprehensive assessments are underway.

Healthy aquatic animal, fish and plant communities require adequate water flows. The control of water [flows](#) is the main way that the Government of South Australia manages the most important aspects of water quality, including salinity, oxygen and blue-green algae (Cyanobacteria).



Where we are at (2010)

Poor

The condition was poor for plants and fish, but moderate for other aquatic animals, relative to pre-European diversity

Between 2008–10, the aquatic habitats of the upper River Murray in South Australia were in better condition than in the downstream habitats, but overall the Murray was in poor condition. The upper habitats were in moderate condition, with good scores for aquatic plant condition. The middle habitats were in poor condition, with poor conditions for fish and other aquatic animals. In the same period, the downstream habitats were in very poor condition, with extremely poor plant condition and poor to extremely poor condition of fish (dominated by introduced carp).

Recent monitoring of the Coorong, Lower Lakes and Murray Mouth indicates that populations of some communities of [aquatic plants, birds and aquatic animals](#) improved between 2010–2013. Since the drought, the condition of river red gums on the floodplains has improved but the 2013 (partial) Sustainable Rivers Audit found that fish populations in the channel declined from poor to very poor and other aquatic animals remained in a moderate condition.

The ecology of the Murray cannot be returned to pre-European conditions, but management of water demand and flows should improve the resilience of the ecological communities to the changing climate. Future reports will track progress towards specific targets in the [Water Act 2007-Basin Plan](#).

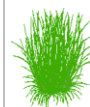
[Condition](#) of plants, fish and other aquatic animals in 2010



Moderate: 76 per cent of the natural aquatic animal community is present



Poor: 43 per cent of the natural fish community is present



Poor: 56 per cent of the natural plant community is present

Reliability of information



Good

Further information: [Technical information for this report card](#), [Sustainable Rivers Audit](#)

