

2014 State Report Card

Are water flows and water quality of the River Murray good enough to support ecosystems?

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. They all 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.

To manage the health of plants and animals in the Murray, the Government of South Australia endeavours to replicate natural water-level fluctuations in the [channel and floodplains](#) and the [Coorong and Lower Lakes](#). The Government assesses the effectiveness of its management against targets for water quality issues, including salinity, oxygen and blue-green algae (Cyanobacteria).

This report should be read alongside others on the [salt flushed](#) out of the Murray Mouth, the ecological [condition](#) of the river and [water quality](#) for irrigation, recreation and domestic supply.



Trends in the percentage of River Murray water flow targets that were met



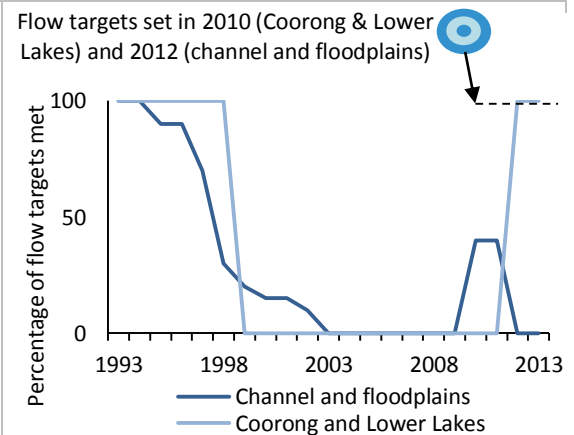
State target
Improve the condition of terrestrial aquatic ecosystems

Trend (2009–13)	Variable	Over the 5 years to 2013, the flow target that is used to manage the Coorong and Lower Lakes was met twice. Over the same period, the percentage of flow targets that were met for the channel and floodplains declined.
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In the worst years of the Millennium Drought (1997-2010), flows into South Australia decreased and no flow targets were met (graph on right). Flows increased from 2010–13, and more targets were met, particularly in the Coorong and Lower Lakes.

Low flows can expose soils in the swamps and Lower Lakes to the air, causing [acid sulphate soils](#) to form. When these soils are next flooded, heavy metals and acid are released, and oxygen is depleted in the water, killing plants and animals.

[SA Water](#) and [Murray-Darling Basin Authority](#) also records blackwater events, which occur when floods wash large amounts of organic material into waterways. The organic material is consumed by bacteria, and this in turn can deplete dissolved oxygen in the water, killing fish and other aquatic animals. This occurred in 2010 and 2012.



Where we are at (2013)	Good for Coorong and Lower Lakes Poor for channel and floodplains	The single flow target for the Coorong and Lower Lakes was met, but no targets for the channel and floodplains were met
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The [Government of South Australia](#), the [South Australian Murray-Darling Basin NRM Board](#), SA Water, the [Murray-Darling Basin Authority](#) and the [Commonwealth Environmental Water Office](#) work to improve flows and water quality, and to balance the needs of plants and animals with those of industries and communities.

The [Water Act 2007-Basin Plan 2012](#) increased the target for environmental flows from 2012. Depending on how much water is required to support industries, the Government of South Australia's target is to recover up to 3200 gigalitres each year.

Reliability of information ★★★★★ Good

Further information: [Technical information for this report card](#), [Water Act 200- Basin Plan 2012](#)