



Government
of South Australia



Australian Government

MURRAY FUTURE

Lower Lakes & Coorong Recovery

FACT SHEET

A freshwater future for the Lower Lakes

At a glance

- The Lower Lakes have been mostly fresh water for 7000 years.
- Even in a future dry climate, the lakes are likely to remain mostly fresh water.
- The South Australian Government is working to secure a healthy, fresh water future for the lakes.
- The Murray-Darling Basin Plan will increase the amount of fresh water for the environment.
- Sea level rise is not an immediate threat to the lakes.



Fresh water history of the Lower Lakes

The Lower Lakes have mostly contained fresh water for 7000 years, only occasionally becoming an estuarine environment for a short time.

Using fossils to reveal the region's past

The University of Adelaide has studied fossilised diatoms in the sediments of Lake Alexandrina.

Diatoms are a common type of algae made of very hard silica, which can be preserved for hundreds of millions of years.

Different types of diatoms live in different environments and are very sensitive to changes in salinity.

The fossils show whether the water they lived in was sea water or fresh water.

Diatoms found in 7000 years of sediments indicate the majority of Lake Alexandrina was fresh water in all years.

What the future may be for the Lower Lakes

Even in a future dry climate, CSIRO modelling indicates the Lower Lakes would remain mostly fresh water, but would occasionally fall below sea level for short periods.

Changes to the way the River Murray is managed and providing more water for the environment could reduce how often the lakes would fall below sea level.

WATER IS GOOD

Planning for a fresh water future

The South Australian Government has developed a plan for the next 20 years that works towards keeping fresh water in the Lower Lakes wetland system.

It aims to conserve the plants, animals, and habitats in the Coorong, Lower Lakes and Murray Mouth region, and prepare them for recovery as more fresh water becomes available.

Plans to increase fresh water flows

The Murray-Darling Basin Authority is working on a basin-wide plan that will change the way water is allocated within and between states.

It is expected to provide more fresh water to protect and restore the region's environment.

The Basin Plan is expected to progressively come into effect from 2011.

The South Australian Government is also working to secure more fresh water for the Lower Lakes and Murray Mouth wetlands. As part of the Murray Futures program, \$80 million has been set aside to purchase water to improve the River Murray's health.

Future impacts of sea level rise

Sea level rise is not seen as an immediate threat to the Lower Lakes.

Current predictions for South Australia are for sea level to rise at least 30 centimetres by 2050, and one metre by 2100.

This may lead to a transition of the Lower Lakes to a more estuarine environment by the end of the century.

Current investigations indicate that the existing coastal dunes will protect the lakes from increases in sea level.

Further information

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