SA Murray-Darling Basin NRM Region

Coastal and marine

Trend in the condition

of estuaries

Getting better Stable

Getting worse

Not applicable

Unknown

2014 Regional Snapshot

Is the condition of our estuaries improving?

The marine environment provides valuable resources for regional economies, supporting tourism, commercial and recreational fishing, aquaculture, shipping and mining. Most South Australians live near the coast and many coastal and marine systems are under pressure from human impacts.

An estuary is a partly enclosed coastal body of water formed where freshwater water from on or under the land mixes with seawater. Estuaries range in size from a few to hundreds of hectares, and can form bays, lagoons, harbours, inlets and gulfs.

We value estuaries for their scenic beauty and as places for recreation, tourism, fisheries, aquaculture and transport. Saltmarsh, mangrove and seagrass habitats are common in estuaries, and help to maintain coastal water quality by filtering sediments, nutrients and pollutants. Estuaries also soften the impact of floods and storms and provide food and shelter for marine animals, including commercial fish in their juvenile stages.

The condition of estuaries depends on activities in their catchments. Estuaries are affected by declines in water quantity and quality. Stormwater, industrial and sewage discharges, seepage and agricultural runoff can increase the amount of nutrients, pollutants and sediments going into the water. Estuaries are also affected by removal of riverbank vegetation, over-grazing by stock, construction of tidal barriers, soil erosion, water diversion, over-fishing and development.

The health of estuaries relies on management of water quality within catchments, coastal developments, grazing and fishing.



State target

Improve condition of coastal and marine ecosystems

Trend	Unknown	Ongoing efforts will be needed to monitor and protect our estuaries

Of the 104 estuaries in South Australia, 1 (the Murray Mouth estuary) is in the SA Murray-Darling Basin NRM region (see map below).

Monitoring and research from the Murray Mouth estuary indicate that it degraded further during the Millennium drought, but the high water flows between 2011-13 improved the recruitment and abundance of some species.

Information has been collected since the <u>National Land and Water Resources Audit</u> in 2001, but it has not been standardised to calculate a trend in the condition of the estuary.

Where we are at (2001)	Very poor	South Australia has some of the most extensively modified estuaries of all Australian states
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The Murray Mouth estuary in the SA Murray-Darling Basin NRM region is the largest in South Australia. Based on assessments for the National Land and Water Resources Audit in 2001, the condition of the Murray Mouth estuary was rated as 'very poor', with a score of 25 out of 100 (where 100 represents undisturbed condition) (map on right). It has been affected by prolonged drought, water extraction from the Murray-Darling Basin, construction of barrages, water diversion, vegetation clearance, and development.

In partnership with the Australian Government, the community, scientists, industry groups and the Ngarrindjeri Aboriginal people, the Government of South Australia is coordinating on-ground works and monitoring programs to improve the Murray Mouth estuary. The Murray-Darling Basin Plan, which was adopted in November 2012, will support the delivery of water for consumption, industries and the environment. Environmental water flows will keep the <u>Murray Mouth</u> open, flush salt out of the system and provide water for wetlands and floodplains.

Reliability of information

Further information: Technical information for this report, Ozcoasts information (estuary search), Information for the Coorong, Lower Lakes and Murray Mouth

Fair

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Estuary condition

Very good

Very poor

No condition recorded

Good
 Poor

