



INLAND WATERS

Achievements/commitments

Since 2003, information on the extent and distribution of wetlands in South Australia has improved through detailed inventories, remote sensing projects, regional wetland prioritisation activities and collation of topographic data.

Reporting of water quality for general information has improved, including a set of webpages for communicating up-to-date water quality data and information, which covers classifications based on water quality indicators and macroinvertebrates. Guidelines have also been released recently including a set for pesticide use.

SA Water is continuing to implement Environment Improvement Programs at its country based wastewater treatment plants to reduce the level of nutrients being discharged into rivers and creeks. All of the treated wastewater produced from the Gumeracha, Mannum, Murray Bridge and Myponga wastewater treatment works is now re-used.

Water resources have been prescribed in a number of areas of South Australia under the Natural Resources Management Act 2004. This means that where water resources have been identified as under stress, or where there is a risk that water resources will not meet future demand if uncontrolled development continues, a

higher level of management will occur than in other areas.

South Australia's Strategic Plan (SASP) has set targets for achieving sustainable water supplies for the state and for managing South Australia's water resources within sustainable limits by 2018. Similarly, the State Natural Resources Management Plan 2006 has set State-wide policy directions and guidelines to ensure a greater focus on the integrated management of water resources.

Trends

- The condition of rivers and creeks remained STABLE at generally moderate to poor condition with respect to nutrient and turbidity levels.
- Water use in areas of South Australia where water use is licensed remained STABLE in most areas. The use of groundwater is currently above estimated sustainable limits in the

Northern Adelaide Plains and parts of the South East, and use of surface water is currently above indicative sustainable limits in some areas of the Mount Lofty Ranges.

- The health of rivers, streams and wetlands of the River Murray floodplain is DECLINING due to over-extraction of water from the river system, increasing salt levels, drought and non-delivery of environmental flows.
- The use of water from the River Murray is INCREASING due to entitlement flows being diverted for irrigation.

Moving forward

South Australia continues to have a strong reliance on the River Murray, with almost half of the total water used in South Australia being taken from the River Murray. In recent years, the Murray-Darling Basin has been subject to the full impact of an extended 10-year period of low rainfall, while at the same time being under pressure from considerable over-use of the resource (arguably from over-allocation).

Priority, in the short term, needs to be given to allocating sufficient River Murray flow to flush poor quality water from the system as soon as water becomes available. In the longer term, changes in environmental water sharing provisions in the Murray-Darling Basin Plan under the Commonwealth Water Act 2007 should include allocation of flood flows to South Australia sufficient to generate appropriate watering regimes for key wetlands on the floodplain. Of particular concern is that the Coorong and Lower Lakes are in the poorest condition that has ever been recorded. Without large amounts of freshwater inflow, the water quality and ecological condition of these sites will get worse and much of the damage may be irreversible.

While water resources in general are under pressure in many parts of South Australia, with demands increasing from large industries including agriculture, to date only a very small percentage of the total stormwater runoff from metropolitan Adelaide is re-used. Accelerating increases in temperature and changes in rainfall patterns associated with climate change may limit future availability of surface water and groundwater resources

across all regions of South Australia.

As may be expected as a result of the drought, inland freshwater riverine ecosystem health has generally declined throughout South Australia. Among the regularly monitored sites, 58% have shown a decline in river health assessments during 2005–06 compared with earlier results. If rainfall patterns return to past average levels in the near future, aquatic ecosystems are likely to recover. If however the current drought continues and rainfall remains below average for much longer, then long-term changes to the structure and functioning of these ecosystems are likely.

To continue to improve future environmental management, further research will be crucial on the extent and environmental needs of water resources in South Australia, including the evaluation of the implications of changes in human land use, water demand and supply availability, water storage needs, flooding and evaporation losses.

Further information

AusRivas Assessment website
www.ausrivas.canberra.edu.au

EPA Water Quality information
www.epa.sa.gov.au/water_quality.html

Murray-Darling Basin Commission
www.mdbc.gov.au

National Water Commission
www.water.gov.au

National Water Quality Management Strategy www.environment.gov.au/water/quality/nwqms

SA Drought Link
www.service.sa.gov.au/ContentPages/sagovt/Drought.aspx

Recommendations for Action

- R2.1 Streamline government management of water by rationalising overlapping responsibilities and improving coordination, in particular for water quality monitoring.
- R2.2 Identify key freshwater assets and set maximum targets for sediment, nutrient and water discharges.
- R2.3 Double the capture and re-use of stormwater and waste water by 2012.
- R2.4 Use a combination of water allocation planning, pricing, incentives and water rights to ensure sustainable water use by 2012.
- R2.5 Pursue environmental water sharing provisions in the Murray-Darling Basin Plan that include allocation of flood flows to South Australia sufficient to generate appropriate watering regimes for key wetlands.