LAND

Achievements/commitments

The introduction of the N*atural Resources Management Act 2004* has resulted in an integrated framework for managing the impacts of land use change on South Australia's natural resources.

Land and crop management practices are improving in many regional areas of South Australia as a consequence of the adoption of new agricultural and communication technologies. Soil loss associated with agricultural land, for example, has reduced considerably over the last 50 years and continues to decline directly as the result of better land management practices. From 2002–03 to 2006–07 there has been a slow but steady improvement in the protection of agricultural crop land from erosion.

Since 2003 the risk of dryland salinity has generally reduced. Influencing factors include below average rainfall with the resulting falling groundwater levels, changes in land use to reduce recharge and the effect of an artificial drainage network constructed in the Mid and Upper South East.

In November 2007, the Parliament of South Australia passed the Environment Protection (Site Contamination) Amendment Act 2007. This legislation assigns responsibility for site contamination, establishes a statutory audit system for South Australia and gives the Environment Protection Authority (EPA) powers to retrospectively deal with site contamination.

Trends

- Residential land use is INCREASING in peri-urban regions with resulting pressures on biodiversity, water resources and agricultural land.
- Change from relatively low intensity land use (such as grazing) to higher intensity uses (such as viticulture and plantation forestry) is INCREASING.
- Extent of acid soils and rates of soil acidification in South Australia is INCREASING.
- Awareness of site contamination is INCREASING.

Recommendations for Action

R4.1 Preserve suitable land for economic agricultural production and biodiversity conservation, recognising that land supply is finite and the demand for housing is growing.

R4.2 Ensure that any potential expansion of commercial tree planting does not compromise natural resources, including local biodiversity, and is accounted for within water allocation planning.

R4.3 Continue to improve soil conservation through appropriate crop selection, fertiliser use and good land management practices.

R4.4 Use targeted revegetation to better manage surface water and groundwater, and achieve both economic and biodiversity benefits.

Moving forward

The continuing spread of residential developments into the Mount Lofty Ranges and into coastal areas needs to be controlled to avoid potential loss of critical ecosystems and biodiversity, reduced water quality, and loss of primary production land. Land use planning and assessment of any additional plantation forests need to consider potential negative impacts on regional water resources and/or biodiversity.

The impacts (especially on water resources) of the increase in irrigated agriculture should be monitored and sustainable land use practices in fertiliser use and crop selection, insofar as these contributes to soil acidification, should be promoted. Without continued intervention, groundwater discharge and surface runoff to the River Murray will increase its salinity.

Ongoing support is required for research and development to deal with biodiversity impacts of dryland salinity and its management through integrated natural resource management.

Further information

Department for Water Land and Biodiversity Conservation
www.dwlbc.sa.gov.au/land/index.html

Environment Protection Authority
www.epa.sa.gov.au

Future Farm Industries CRC
www.futurefarmcrc.com.au/

Phylloxera and Grape Industry Board of South Australia
www.phylloxera.org.au/statistics

Planning SA
www.planning.sa.gov.au

Upper South East Dryland Salinity and Flood Management Program
www.dwlbc.sa.gov.au/land/programs/use/index.html

Sowing a crop using the direct drill method. The adoption of improved land management practices, particularly no-till sowing and direct drill sowing combined with stubble retention, has greatly increased the protection of cropping land from soil erosion. Photo: DWLBC