SOUTH AUSTRALIAN GOVERNMENT SUBMISSION TO THE SENATE ENVIRONMENT, COMMUNICATIONS, INFORMATION TECHNOLOGY AND THE ARTS REFERENCES COMMITTEE

INQUIRY INTO THE LONG-TERM SUCCESS OF FEDERAL PROGRAMS THAT SEEK TO REDUCE THE EXTENT OF AND ECONOMIC IMPACT OF SALINITY IN THE AUSTRALIAN ENVIRONMENT.

BACKGROUND – SALINITY IN SOUTH AUSTRALIA

Salinity in South Australia has major impacts on our land and water, our natural environment and biodiversity, our built infrastructure, and ultimately, the future of our regional communities.

The geographical impacts of salinity in South Australia can be considered in two broad categories:

1 Dryland salinity impacts in the broadacre agicultural areas.
2 Salinity impacts on the River Murray

DRYLAND SALINITY IMPACTS IN THE BROADACRE AGICULTURAL AREAS

In the broadacre dryland farming areas of SA, historical clearance of native vegetation and its replacement with annual crops and pastures has upset the natural water balance. Consequently, groundwater levels have risen in many parts of the state causing land to become salt affected and increasing saline groundwater discharge to streams.

Current estimates (NLWRA 2000) put the area of agricultural land in SA affected by dryland salinity at approximately 326,000 hectares (table 1). In addition, approximately 18,000 hectares of native vegetation and 45,000 hectares of wetlands are also affected.

The distribution of land affected by dryland salinity in SA is shown in map 1. The Upper South East is the most severely affected region with around 250,000 hectares currently showing signs of dryland salinity. This accounts for almost 80% of the total area of land affected by dryland salinity in the state.

In 2000 it was estimated that if no further action was taken a total of 521,000 hectares of land would be affected by dryland salinity in SA before a new equilibrium is reached. This is expected to occur by 2050 and represents a 60% increase over current levels.

In response to threat posed by dryland salinity the South Australian government developed the **South Australian Dryland Salinity Strategy in October 2001.**

Table 1: Estimate of areas (hectares) affected by dryland salinity in 2000 and at risk from rising groundwater by 2050.

Region	2000		2050	% Increase from 2000
	Area (ha)	%	Area (ha)	
Upper South East	250,500	76.8%	409,500	63.5%
SA MDB	19,800	6.1%	34,000	71.7%
Eyre Peninsula	20,400	6.3%	27,000	32.4%
Northern and Yorke Peninsula	28,700	8.8%	41,000	42.9%
Kangaroo Island	5,600	1.7%	8,000	42.9%
Adelaide and Mt Lofty Ranges	1,200	0.4%	1,500	25.0%
Total	**326,000**	**100%**	**521,000**	**60%**

(Source: National Land and Water Resources Audit 2000)

Upper South East

The Upper South East (USE) area of South Australia covers nearly 1.3M hectares, with over 430 farm businesses based mainly on sheep and cattle grazing along with significant cropping enterprises.

Large scale clearing of native vegetation was undertaken between 1949 and 1965, much of this land being successfully sown to deep-rooted perennial pastures. During the 1970s about 50 per cent of USE pastures were lucerne, important not only for its productive value but also as an effective means of reducing groundwater recharge.

Salinity is not a new issue in the USE, but it became an increasing problem with the demise of lucerne following aphid infestations in 1978 and with the advent of widespread flooding during the 1980's and early 1990's. As a result, dryland salinity currently affects about 250,000 ha of the USE, with a further 160,000 ha at risk. Salinisation in the region is driven by the evaporation of water associated with high saline groundwater tables that are recharged by annual rainfall and periodic widespread flooding. The interdunal flats that characterise the region are particularly prone to flooding in years of above average rainfall. Not only does the flooding damage crops, pastures and infrastructure, it also recharges the saline groundwater system.

Map 1: Distribution of land affected by salinity in South Australia - 2000

SALINITY IMPACTS ON THE RIVER MURRAY

The River Murray is one of South Australia's, and the Nation's, most important assets. It supplies water to 80% of SA's urban population, and provides up to 90% of Adelaide's water supply during drought times. It also provides water for the state's most important irrigation region, is essential for the states economic and social well-being and is a key natural asset.

In the River Murray in SA, salt inflows from interstate combine with local sources of salt from irrigation and dryland areas to threaten this vital resource.

The River Murray is the natural drain for the Murray-Darling Basin. Groundwaters discharge into the River, and as salinities in the Basin are high, in some cases exceeding that of seawater, will increase the salt loads and salinity of the River. Groundwaters in the aquifers generally flow westwards from recharge areas in the east, and discharge where intersected by the River. In South Australia the Murray flow direction changes from generally east-west to north-south, where the River intersects the saline aquifer east-west flow pattern and receives saline groundwaters. This natural process puts water quality in South Australia at much greater risk than further upstream, even though the aquifer waters originate upstream.

This natural salt inflow has been increased by irrigation developments and clearance of native vegetation in the Mallee for dryland farming. Localised groundwater mounds have formed beneath irrigated areas, forcing the underlying saline groundwater into the River. In the Mallee, deep-rooted native vegetation have been replaced by annual crops and pastures with less capacity to use all the available rainfall, causing a gradual rise in groundwater levels that will eventually increase discharge to the River.

Before the locks and weirs were put in place, water levels and salinity would fluctuate widely. There would be periods with very low flows and high salinity and periods with high flows and low salinity. The current flow regime has very little variation in flows but an increased average salinity as a result of the increased salt inflow from groundwater.

Irrigation induced salinity impacts

The salinity impacts that are due to irrigation are the result of drainage from the irrigated land. The actual impact on the River can vary greatly, depending on:

- how saline the groundwater is between the irrigation development and the River;
- the distance between the irrigation development and the river;
- the properties of the soil (is there a clay layer or not);
- the properties of the aquifer (groundwater bearing layer) such as depth, thickness and how fast water can move through the aquifer; and
- irrigation practices, particularly the volume of drainage water that is lost to the crop and makes its way to the groundwater.

Salinity management arrangements established under the Murray-Darling Basin Agreement have set a River Murray salinity target of 800 EC or less, 95% of the time, at Morgan. If this target can be maintained SA has reasonable assurance of receiving water of suitable quality for irrigation, industrial and domestic purposes, without incurring unacceptable costs.

Under Murray-Darling Basin formal agreements (*Schedule C to the Agreement)*, SA (and likewise NSW and Victoria) is required to ensure any actions taken since 1988 that may increase River Murray salinity (salinity debits) are fully offset by actions that reduce salinity (salinity credits). The South Australian Government adopted its own **River Murray Salinity Strategy in June 2001** to provide a framework for the long-term management of salinity.

To meet the salinity obligations, SA has:

- Implemented salinity impact zoning. Some potential irrigation development locations will result in much greater salinity impact than others. High salinity impacts generally

correspond to locations either, or both, close to the River, and where groundwater salinity is high. Salinity zoning policy aims to direct new irrigation development to low salinity impact locations by only allocating salinity credits to developments in low salinity impact locations.

- Established a salinity accounting system to record both salinity credits and debits. Debits are generated when irrigation increases the rate of saline groundwater drainage to the River. Credits arise from actions that reduce saline groundwater drainage, such as irrigation headworks rehabilitation, improved irrigation management, and salt interception. SA's salinity account is currently in a small credit, which will move to debit as delayed impacts of irrigation development are fully expressed, unless further salinity management action is taken.

- Accelerated construction of salt interception schemes. Salt interception schemes reduce inflow of saline groundwater into the River Murray. (Salt interception schemes consist of a series of underground pumps and bores that intercept saline groundwater before it reaches the river, and divert it to areas off the floodplain). The schemes also control watertable levels on the River floodplain providing environmental benefits, and underpin sustainable irrigation development by preventing saline irrigation drainage from impacting the River and the floodplain. In addition to local benefits, the schemes allow SA, Victoria and NSW to discharge salt to the River up to their share of benefits from the schemes. The schemes are critical for the achievement of the 800 EC River Murray water quality target and for economic development targets in the *State Food Plan*, which require increased production in the Riverland.

Other actions include:
- improved irrigation management with less drainage;
- research and development to explore productive uses of salt;
- investigation of market-based mechanisms to encourage efficient irrigation; and
- revegetation programs.

(a) Whether goals of national programs to address salinity have been attained, including those stated in the National Action Plan for Salinity and Water Quality, National Heritage Trust and National Landcare programs.

South Australia was the first jurisdiction to sign a bilateral agreement with the Commonwealth to implement the National Action Plan (NAP) for Salinity and Water Quality (signed 8th June 2001).

Investment made in SA through the National Action Plan for Salinity and Water Quality (NAP), National Landcare Program (NLP) and the Natural Heritage Trust (NHT) has been highly strategic, with the majority of the investment targeted at the highest priority issues of the River Murray and Upper South East area.

RIVER MURRAY

The National Action Plan (NAP) for Salinity and Water Quality has provided new funding for salt interception; mapping of salinity impact zones; community support through a salinity response team; policy development to ensure accountability for salinity impacts. The most significant investment has been in salt interception infrastructure, in the form of co-investment with Murray-Darling Basin Commission schemes.

Actions to mitigate salinity impacts on the River are aimed at achieving the salinity target of 800 EC or less, 95% of the time, at Morgan.

The salt interception program aims to achieve real decreases in River salinity, and also to allow new irrigation both at salt interception sites (where the River is 'salt-proofed') and other locations by offsetting salinity impact at that location by salt intercepted elsewhere.

Salt interception schemes progressed through the NAP, and there cost, impacts and status, are listed below:

Scheme		Cost ($m)	Salinity Benefit – tonnes/day	Salinity Benefit – EC at Morgan	NAP: MDBC cost share	Status
1	Bookpurnong	$11	130	32	37:63	Completed
2	Loxton	$24	61	16.1	Approved at 24:76 but subject to renegotiation	Construction commenced
3	Murtho	$32	115	19	Not yet negotiated	Approval submission prepared
4	Pike	$28	127	23	Not yet negotiated	Approval submission prepared
5	Chowilla	Approx $60	29	9	Not yet negotiated	Technical evaluation underway
6	Waikerie IIL	$12	50	11	Not yet negotiated	Technical evaluation completed
TOTAL		**$167m (approx)**	**512**	**110.1**		

NAP funds will allow completion of the Bookpurnong and Loxton schemes. However, the funds then remaining from the initial $35m proposed investment (currently approximately $15m) will be insufficient to complete the Pike or Murtho schemes, or commence Chowilla or Waikerie IIL.

In addition, approximately $2m has been invested in the regional salt disposal strategy to secure sustainable salt management basins.

UPPER SOUTH EAST

The Upper South East Dryland Salinity and Flood Management Program (USE Program) was developed in the early 1990's to address community concerns about dryland salinity, waterlogging and ecosystem fragmentation and degradation. The development and ongoing management and implementation of the Program involves extensive consultation with experts in the various disciplines relevant to the problem (salinity, agronomy, environment and engineering) and with regional stakeholders.

Dryland salinity in the Upper South East (USE), which represents approximately 80 per cent of the salinity in South Australia, is closely associated with flooding. The interdunal flats that characterise the region are particularly prone to inundation in years of above average rainfall. Not only does this inundation damage crops, pastures and infrastructure, it also recharges the saline groundwater system that is in many areas close to the ground surface.

The USE Program has been established with very clear and robust governance frameworks. The Program is defined and delivered under the umbrella of the *Upper South East Dryland Salinity and Flood Management Act 2002*. The Minister for Environment and Conservation (SA) has executive authority under the Act for the Program.

The Program is further defined under the USE Program: National Action Plan For Salinity and Water Quality – Project Proposal and related Bilateral Agreement between the South Australian (through the ERD and Public Works committees of parliament and Cabinet) and Australian Government (through the Department of Environment and the Department of Agriculture, Fisheries and Forestry). Both governments receive quarterly and an annual report against the objectives, milestones and budget defined within the approved Program plan.

A Program Board provides direction on all components of the Program at the strategic level and reports to the over-viewing bodies. The Board consists of representatives from the key stakeholder bodies, including the Australian Government, the South Australian Government, regional authorities, the Conservation Council of SA and regional landholders.

The Plan identified a multi-pronged approach to managing the problems affecting the USE, including major programs towards:

- Drainage of saline groundwater and mitigation of prolonged flooding
- Management of key wetland systems
- Conservation of remnant vegetation and revegetation for biodiversity and recharge control purposes
- Improving agronomy practices on the salt-land environment.

The USE Program is an integrated scheme incorporating environmental and engineering sub-programs, designed to respond to the regional salinity and flooding problem, while at the same time providing for the conservation and enhancement of biodiversity assets across the landscape, with a particular focus on the delivery of environmental flows to the regions wetlands. The scope of the Program is outlined below:

- Drainage Sub-Program
  Designed and implemented to enhance and protect agricultural and biodiversity values.
- Adaptive Management Sub-Program
  Develop a resource optimisation framework for the manipulation of environmental flows and drainage water.

- Wetland Management Sub-Program (Including The Coorong)

Ensuring wetland environments are managed to maintain the diversity of regional wetland ecosystems and species.

- Biodiversity Conservation Sub-Program
  Ensuring protection and enhancement programs are undertaken to conserve existing biodiversity values and maximise hydrological benefits.

- Salt-land Agronomy Sub-Program
  Promoting a diversified range of salt-land agricultural and pastoral practices for and adoption across the region.

- USE Program Support
  Providing organizational and administrative support to the Program Team and meet program reporting requirements.

- Communication And Community Education
  Ensuring stakeholders are fully informed of project direction and progress.

The drainage component of the USE Program commenced in the mid-1990s and was funded jointly by the Commonwealth and State Government to an amount of $18m with the local community contributing approx. $7m. Under the current funding the NAP will provide a further $38m plus $11m to be raised by a Project Levy on landholders, bringing the total to $49m.

An important and innovative aspect of the Project Levy is that landholders can offset the cost of the levy against a management (stewardship) agreement for biodiversity conservation. The first management agreements with landholders are in the process of being signed.

Specific examples of progress to date with on-ground action are:

- Construction of approximately 495 km of drainage channels has been completed, with a further 165km to be constructed.
- Fencing of over 6560 ha of remnant vegetation
- Revegetation of 1250 ha with native vegetation
- Protection of more than 2650 ha of wetlands
- Establishment of salt tolerant pastures on more than 65% of the salt affected land

ADDITIONAL INVESTMENT NEEDED

While major progress has been made in delivering salinity and other NRM outcomes in South Australia through the NAP, NHT and NLP, additional investment is needed.

River Murray Salinity Mitigation

Additional investment is needed to complete the of infrastructure required to mitigate salinity impacts on the River Murray.

Investment of approximately $50m is required to complete the Murtho and Pike schemes.

Salt interception at Chowilla, as part of an environmental management initiative, should be part of investment at that location. Capital funds will be high (possibly in excess of $50m). Planning investigations are continuing to develop an effective scheme. Salt disposal is a difficult problem for the Chowilla scheme.

An extension to the existing MDBC scheme at Waikerie has been identified as technically feasible but further evaluation is required to determine the economic and environmental benefits. This scheme has an estimated capital requirement of $10m. It is unlikely further investment in salt interception beyond these schemes will be economically viable in SA, apart from limited upgrades to existing schemes.

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Broadacre agricultural regions

Community groups in all the agricultural regions of the state are implementing on-ground projects to delivery salinity and other NRM outcomes, consistent with the Regional NRM Plans and Investment Strategies.

Most projects are designed to deliver an integrated package of NRM and sustainable land management outcomes, including dryland salinity management, soil erosion control, water quality and habitat and native vegetation management.

In areas where profitable land use options based on perennial plants exist, large-scale on-ground change has been achieved. For example, in the Coorong District (in the lower reaches of the SA MDB) salinity was recognised as a major problem in the early 1990s. In 1995 a Local Action Planning Committee was formed to tackle the problem with strong support from the then Meningie District Council. In consultation with local landholders the committee developed a Local Action Plan (LAP), including the target of achieving a 20% reduction in recharge by 2003. On-ground action to control the problem began in 1997 with funds from the NHT and subsequently the NAP. By 2003 the LAP Committee had established approximately 100,000 ha of perennial vegetation for the purposes of recharge reduction to control dryland salinity, achieving the recharge reduction target set in the LAP. In addition, participation rates from local landholders in the on-ground works exceeded 75%. Of the perennial vegetation established, over 50% is lucerne. Progress towards the longer-term target of a 50% reduction in recharge across the district is continuing.

However, many areas of the state, such as the Murray Mallee, Eyre Peninsula and Northern and Yorke Peninsula, viable options for salinity management at the scale required do not exist. In addition, there are a large range of NRM issues to be addressed and action is needed over very large areas. While significant progress has been made, much work remains to be done and considerable further investment in on-ground action will be needed.

R&D into the management of salinity, development and related environmental issues.

Further research and development into the management salinity, sustainable development and related environmental issues is required. Some examples are provided below.

- Methods to optimise the management of River Murray floodplain and associated ecosystems while minimising salt flows to the River.
- The management and disposal of the saline waters from salt interception schemes in the Riverland. Research is required in the use of the drainage water to irrigate salt tolerant crops to further concentrate the intercepted water in order to reduce volumes for disposal. Research into beneficial use through aquaculture, mineral extraction, or other uses is also needed to provide some economic benefit.
- Methods to achieve optimal production in irrigated areas while maximising water use efficiency. There is a need to balance efficient water use with the removal of salt from the soil. Research is needed to understand the processes involved.
- Research into the impact of saline irrigation water on soil sodicity and soil structure.
- In areas where irrigation development is based on groundwater, such as in the South East region, research is needed on sustainable irrigation management to prevent salinisation of the groundwater resource.
- Management options to protect groundwater from salt and nutrient pollution while enabling further irrigation development.

- In the broadacre agricultural areas, practical and profitable management options that can effectively be applied at the scale required to tackle salinity are lacking. Further R&D is required to develop commercial options that can be applied at the scale required.
- Salinity impacts on biodiversity resources and other environmental values are not well understood and require greater research effort.

(b) The role that regional catchment management authorities are required to play in management of salinity-affected areas, and the legislative and financial support available to assist them in achieving national goals

INRM Groups

In South Australia, natural resource management programs, including salinity, are now delivered through a Regional Integrated Natural Resource Management (INRM) framework. During the 1990s and early 2000s eight Integrated Natural Resource Management (INRM) Groups were established across the State following a process of community consultation.

This Regional framework has been strongly reinforced by the funding arrangements for the NAP, NHT and NLP.

Each of the INRM Groups, in partnership with the Australian and South Australian governments, has developed an accredited Regional Integrated Natural Resource Management (INRM) Plan. These plans are a detailed assessment of each region's biophysical assets, the threats they face and the actions needed to protect them. An Investment Strategy, which provides the 'business plan' for the INRM Plan and guides Government investment in priority projects, has also been prepared by each regional INRM group and approved by the SA and Australian governments. The Investment Strategies are also used to attract investment from the community, industry and other NRM stakeholders.

Regional investment through the NAP, the NHT and the NLP for natural resource management and sustainable development, is based on these regional INRM Plans and Investment Strategies.

Funding for INRM groups has been largely provided through the NHT and NAP programs with the NAP funding arrangements applied only to the nominated priority areas (South East, SA Murray Darling Basin, Kangaroo Island, Mt Lofty Ranges – Greater Adelaide, Northern and Yorke Agricultural Districts).

Natural Resources Management Act, 2004

After extensive community consultation NRM management in South Australia was re-structured through the enactment of the *Natural Resources Management Act 2004*. The NRM Act is a major step towards integrating and consolidating natural resource management in SA. The Act establishes a comprehensive legislative framework, which balances the needs of land users, the environment and an empowered, accountable community. This approach is consistent with the Australian Government's commitment to institutional reform to better address NRM issues.

The NRM Act provides for an integrated approach to NRM by bringing together the provisions of the *Water Resources Act*, the *Soil Conservation and Landcare Act* and the *Animal and Plant Control (Agricultural Protection and Other Purposes) Act*. The NRM Act provides for a network eight Regional NRM Boards to assume functions and responsibilities relating to catchment water management, soil conservation and animal and plant control. The eight Boards will take over roles and responsibilities that were previously undertaken by a total of 73 boards and eight INRM groups. This is clearly a pivotal step in providing for an integrated and regionally based approach to NRM in South Australia.

The Regional NRM Boards assume the functions of the INRM Groups established earlier, including responsibility for NAP, NHT and NLP funds allocated at a regional level. In addition to funds from the Australian and South Australian governments, most regions will raise their own funds through an NRM levy towards the delivery of the Regional NRM Board programs. Most South Australians already pay levies either in the form of a water catchment levy and through normal Council rates for pest plant and animal control. The money raised in a region through the new NRM levy will be spent on tackling problems affecting the region.

The NRM Boards became operationally responsible for relevant provisions of the NRM Act 2004 on 1 July 2005 and have the primary responsibility for delivering the natural resource management reforms on the ground, including managing salinity-affected areas and assisting landholders to develop environmentally sustainable land management practices.

A Natural Resource Management Council has been established under the NRM Act to provide strategic advice to he Government about natural resources policy, the State NRM Plan and consistency with the State Planning Strategy, regional activities and administrative arrangements. The Council will also provide advice in relation to Australian Government NRM funding programs in accordance with relevant bilateral agreements.

(c) What action has been taken as a result of recommendations made by the House of Representatives' Science and Innovation Committee's inquiry 'Science overcoming salinity: Coordinating and extending the science to address the nation's salinity problem', and how those recommendations may be furthered to assist land-holders, regional managers and affected communities to address and reduce the problems presented by salinity.

A strong science and technical base and a sound understanding of the biophysical processes is critical to develop management actions for salinity and other NRM outcomes that will be successful, effective and provide value for money. This philosophy has underpinned the Regional INRM Plans and Investment Strategies prepared in South Australia.

Technical support

The state government has provided administrative, technical and scientific support to the NRM Boards (and the INRM Groups before them) to assist them with the development or their NRM Plans and Investment Strategies, and with the design and implementation of on-ground projects to delivery salinity and other NRM outcomes.

Salinity response teams, funded from state and Commonwealth programs, have assisted regional communities in the dryland areas and the River Murray to develop and implement salinity management plans. The key role of the Salinity response teams is to support the communities by identifying, analysing and interpreting relevant scientific and technical information. In the River Murray areas, the salinity response teams have assisted communities to prepare land and water management plans to identify strategic irrigation and drainage management practices to reduce salinity risks to the River Murray.

In the dryland areas, Regional Salinity Management Plans have been prepared identifying assets at risk, high priority catchments and the nature and scope of on-ground action needed. Catchment management plans have been developed for priority catchments.

To assist community groups to implement high quality on-ground projects, technical staff from the state agencies have provided individual onsite property visits and supported landholders in their Property Management Planning efforts. Assistance with workshops, field days and other capacity building activities has also been provided.

Research and Development Initiatives

The South Australian Government is engaged in a range of R&D initiatives to ensure that salinity management is based on the best possible available science.

Airborne Geophysics

Through the NAP airborne geophysics techniques have been used in five key areas of South Australia to improve our understanding of salinity processes and to assist with the development of appropriate management actions. The work involved extensive investigations and information from a range of other disciplines (soil science, hydrogeology, modelling, engineering, ecology, agronomy etc) in order to apply and interpret the airborne geophysics information in a meaningful way.

Study areas were located at Jamestown, the Bremer Hills, Angas-Bremer Plains, Riverland and Tintinara. The geophysical techniques used were tailored to provide specific information according to the salinity issues and management options applicable at each site. Results of the work have been incorporated into strategies and actions to improve salinity management. For example, the results from the Riverland studies have been used to assist the design of borefields for the Loxton-Bookpurnong salt interception scheme and to inform zoning policies for irrigation development.

Centre for Natural Resource Management
The South Australian Government established a Centre for Natural Resource Management (CNRM) to provide the link between regional community groups, industry, scientists and researchers. The Centre fosters partnerships between these groups so that management of salinity and other natural resource management issues across South Australia is based on world-class research and development.

The Australian Government endorsed the formation of the Centre, and it was allocated $10m from the NAP to identify and support strategic and innovative research and development activities to address salinity and water quality issues.

The Centre facilitates and encourages collaboration amongst researchers, so that the research community can deliver better outcomes collectively, and support regional delivery of improved on-ground outcomes. It identifies and negotiates supplementary funding and co-investment sources for NRM research, from both the public and private sectors, with the aim of leveraging NAP research funding. Through its strong partnerships and linkages with business and industry stakeholders the Centre can provide enhanced co-investment opportunities and return on co-investment.

Through the Centre, over 35 research project proposals have been developed to address NAP issues in SA. Of these 12 have been approved and are underway and the others are being recommended for approval.

Cooperative Research Centre for Plant Based Management of Dryland Salinity
In recognition of the need to develop new and innovative methods to manage dryland salinity, the South Australia Government is one of the core partner organisations in the Cooperative Research Centre for Plant Based Management of Dryland Salinity, established in 2001.

The CRC includes an integrated program of research and development that addresses the social, economic and biophysical aspects of dryland salinity. The primary focus of the CRC is on the development of profitable farming systems based on perennial plants. This research is very important for the broadacre agricultural regions of SA where practical and profitable management options that can effectively be applied at the scale required to address salinity are not available.

One of the CRC projects of direct relevance to the broadacre regions of SA, such the Murray Mallee, aims to develop native woody perennial plants suitable for large-scale commercial revegetation in the wheat-sheep belt of southern Australia to both aid in controlling dryland salinity and to provide the foundation for viable new industries.