

SAVE THE RIVER MURRAY FUND

ANNUAL REPORT 2005-06

PREPARED FOR THE

SOUTH AUSTRALIAN PARLIAMENT

BY THE MINISTER FOR THE RIVER MURRAY

7 DECEMBER 2006

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For further information about the Save the River Murray Fund, or the achievements listed in this Annual Report, please contact the Department of Water, Land and Biodiversity Conservation on (08) 8463 6800 or visit the website at www.dwlbc.sa.gov.au



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INTRODUCTION

The Save the River Murray Fund was established under the Waterworks Act 1932 on 24 July 2003. The Fund is held by the Minister for the River Murray and administered by the Department of Water, Land and Biodiversity Conservation (DWLBC) on behalf of the Minister.

The Save the River Murray Levy was introduced on 1 October 2003 under the Waterworks (Save the River Murray Levy) Amendment Bill 2003. The levy is charged to all SA Water customers across South Australia, both residential and non-residential and is indexed annually.

The Save the River Murray Levy contributes to a program of works and measures to address the declining health of the River Murray in South Australia and increasing community demands for a high security of good quality water for urban and irrigation purposes. The program, known as the River Murray Improvement Program, is integrated within a larger Murray-Darling Basin Initiative program of works and measures, and the implementation of South Australian River Murray strategies.

The program contributes to the delivery of three high level outcomes:

- improved environmental health of the River Murray system in South Australia;
- high security of water of acceptable quality for irrigation in South Australia at an appropriate price; and
- high security of water quality for urban water supplies.

The program also contributes to a range of targets identified in South Australia's Strategic Plan including:

 Increase environmental flows by 500GL in the River Murray by 2008, with a longer-term target to reach 1500GL by 2018 (T3.1);

- Reduce our ecological footprint to reduce the impact of human settlements and activities within 10 years (T3.10);
- Build and maintain infrastructure to develop and support sustainable communities in regions (T5.11).

At the beginning of the 2005-06 year, there was \$11.6 million in the Fund representing commitments relating to the South Australian contribution towards the \$500 million package to return 500 GL of water to the river system and water quality projects.

In 2005-06 a total of \$21.8 million was received into the Fund and \$26.2 million was expended from the Fund on works and measures under the River Murray Improvement Program.

The annual report framework is presented to highlight achievements in the following five key outcome areas:

- 1. RETURNING WATER TO THE RIVER
- SECURING WATER RIGHTS
- 3. PROTECTING THE RIVER
- 4. ENHANCING THE ENVIRONMENT
- 5. BUILDING CAPACITY

RETURNING WATER TO THE RIVER

Throughout 2005-06 a number of initiatives have been undertaken to return water to the River Murray with the aim of addressing environmental water needs, the effects of long-term drought and decline in River Murray health.

Influences that span the Murray-Darling Basin as a whole have been addressed in the work undertaken this year, especially in delivering on South Australian commitments under The Living Murray Initiative *First Step* decision to return 500 gigalitres (GL) to the river by 2009.

Under the Living Murray Business Plan, South Australia has an indicative water recovery target of 35 GL of water from within South Australia as part of its contribution to the *First Step*. In May 2006, the Government approved the South Australian Water Recovery Package that will result in this water recovery target being achieved.

In addition, a number of individuals and organisations expressed interest and donated water to specific watering projects. These donations allowed some priority sites to receive much needed water and processes have been established to facilitate further donations.

The Environmental Flows for the River Murray - South Australia's framework for collective action to restore river health 2005-2010 was released on 19 October 2005, after an extensive and effective consultation process.

The strategy responds to both the Murray-Darling Basin Ministerial Council's First Step decision and the Intergovernmental Agreement on Addressing Water Over-allocation and Achieving Environmental Objectives in the Murray-Darling Basin by setting directions and priorities for the recovery, delivery and management of flows in the River Murray in South Australia for the next five years.

The strategy is now being implemented with actions; lead responsibilities, partners and timeframes clearly identified in Part C - Implementing the Strategy. Key actions implemented in 2005-06 include:

- establishment of the River Murray
 Environmental Manager function within the SA Murray-Darling Basin Natural Resources
 Management Board;
- encouragement of individuals and organisations to donate water to accredited environmental watering projects by:
 - the removal of fees for a new water licence where the licence is an environmental donations licence;
 - the removal of fees for the transfer of a water licence or water allocation where the transfer is a donation to an environmental donations licence; and
 - the refund of the appropriate proportion of the natural resources management water based levy where a water allocation is donated to an environmental donations licence.
- exemption of stamp duty on the transfer of water licences or water allocation, which became effective on 1 July 2006.

At the September 2005 meeting of the Murray-Darling Basin Ministerial Council the Minister for the River Murray emphasised the need for the Living Murray (TLM) water recovery process to be accelerated, including the purchase of water entitlements from willing sellers and/or purchase of options on water entitlements.

The South Australian Government approved the South Australian Water Recovery Package for TLM on 8 May 2006. The package enables the Minster for the River Murray to spend \$62 million over four years from the Save the River Murray Fund on water recovery measures for The Living Murray Initiative. The package identifies 35 GL to be recovered from within South Australia. This 35 GL consists of:

- securing Government held water for the environment (13 GL);
- innovative market options (20 GL); and
- infrastructure measures (2 GL).

The package identifies the broad sources of water for recovery within South Australia and highlights the State's commitment to improving River Murray health.

- Continuation of strong partnerships between all River Murray associated government agencies, stakeholder groups, communities, individuals and corporate citizens.
- Initiation of an interim process for watering project nominations and development of an assessment method to enable accreditation of projects.
- Development of a registration and nominations process to deliver environmental water donations.
- 6.81GL of water donations received during 2005-06.
- Continuation of the monitoring of ecological responses at watering sites to guide future environmental watering decisions.

- Chowilla hydrodynamic model completed and became operational.
- Environmental Flows for the River Murray
 South Australia's framework for collective action to restore river health 2005-2010 was finalised and released.
- Environmental Management Plans for the Chowilla Floodplain (including Lindsay-Wallpolla) and Lower Lakes/Coorong/Murray Mouth TLM Icon Sites were completed.
- Development of South Australia's 35 GL Water Recovery Package for The Living Murray (TLM).
- The initial 10 GL of Government held water for the environment was purchased and transferred onto a new TLM environmental licence.
- Creation of the River Murray Environmental Manager Unit within the SA Murray-Darling Basin Natural Resources Management Board.
- Continuation and expansion of watering projects at Chowilla.
- Environmental releases were made at the Tauwitchere, Goolwa and Boundary Creek barrages (including through the fishways) during 2005-06.
- On-going positive ecological responses to the environmental watering program.



CASE STUDY

RETURNING WATER TO THE MURRAY

South Australian Premier, Mike Rann, and River Murray Minister Karlene Maywald, formally announced a South Australian Living Murray water recovery package on 11 May 2006.

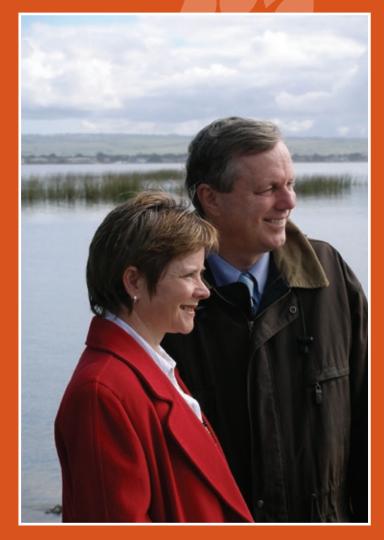
The package is designed to meet South Australia's water recovery target of 35 gigalitres as outlined in the *Living Murray Business Plan* (2005). This is the first step in a Basin-wide plan to return 500 gigalitres of water to the River Murray by 2009 for environmental flows. The package includes three key elements:

- securing government held water for environmental use
- water purchased from willing sellers
- infrastructure investment and on-farm efficiency measures.

The initial 10 billion litres of government held water for the environment was purchased and transferred onto a new licence issued to the Minister for the River Murray, specifically for recovered Living Murray environmental water. The dedication of this water means that it is committed to targeted and ongoing environmental use in accordance with The Living Murray Environmental Watering Plan.

The package was presented to the Murray-Darling Basin Ministerial Council on 19 May 2006, who agreed to fast track the measures to allow water to be available for environmental use at Living Murray icon sites in the 2006/07 watering season.

This represents a huge investment in time and effort by the Government, which has worked hard to acquire water back from willing sellers, along with water acquired through the changeover from open channels to pipelines in the Loxton region.



02

SECURING WATER RIGHTS

The securing of water rights of the River Murray and Murray-Darling Basin is important for licensed water users and the wider South Australian community in economic, social and cultural terms.

This security encompasses the quantity and quality of available water, and must consider the needs of all water users including rural and urban users as well as the environment. The security and transfer of these rights are key principles of the National Water Initiative, and of Council of Australian Government commitments.

On 1 July 2005 the Natural Resource Management Act 2004 ("the NRM Act") came into operation. This Act together with the River Murray Prescribed Watercourse Water Allocation Plan (WAP) and the River Murray Act 2003 ("the RM Act") form the guiding legislation and policy for the management and protection of the River Murray within South Australia. The introduction of the NRM Act further enhances South Australia's ability to protect and manage its water resources.

Ongoing implementation of the WAP has remained a major focus during 2005-06. New management arrangements have been introduced to facilitate increased allocation and transfer of water for environmental needs, and expanded assessment of water allocation trading occurred to manage the associated salinity impacts.

A significant program has continued in protecting the Eastern Mount Lofty Ranges catchment that forms part of the Murray-Darling Basin system in South Australia. The catchment provides freshwater flows to the River Murray and Lower Lakes and supports a range of important industries, communities and aquatic environments. Given increasing demand for water in the area, assessments by the Department of Water, Land and Biodiversity Conservation and the South

Australian Murray-Darling Basin Natural Resources Management Board indicate that these water resources may not meet future demand if development is not managed.

The water resources of the Eastern Mount Lofty Ranges were prescribed on 8 September 2005 following extensive community and industry consultation. Prescription establishes a framework for the sustainable water resource management and provides more secure access to water for all water users, establishes a potentially tradeable statutory water right and recognises the environment as a legitimate user of water.

A Notice of Prohibition is currently in place in the Eastern Mount Lofty Ranges to temporarily prohibit the taking of groundwater, surface water and watercourse water for new uses while existing water use and the capacity of the resource to support future needs are assessed. A structured program of Land and Water Use Surveys to assess current levels of water use continued throughout 2005-06. Authorisations confirming rights to take water during the prohibition period were issued progressively, thereby providing security of access to water.

The South Australian Murray-Darling Basin Natural Resources Management Board is currently preparing a water allocation plan for the Eastern Mount Lofty Ranges to ensure water resources in the area are managed and developed in a sustainable manner. A Draft Concept Statement for the Eastern Mount Lofty Ranges Water Allocation Plan was released for public consultation on 29 May 2006.



- Implementation of operational policy, protocols and procedures in protecting the waters of the River Murray through the South Australian River Murray Salinity Zoning Policy.
- Issue of volumetric water licences consistent with Cap requirements of the Murray-Darling Basin Commission for Lower Murray Reclaimed Irrigation Areas.
- Issue of a water licence to the Minister for the River Murray with a water allocation of 10 GL as the first stage in South Australia's 35 GL Living Murray Water Recovery Package.
- Issue of the first River Murray environmental donations water licence to support the management of priority environmental assets.
- Increased regional programs addressing non-compliant water extraction and use, and damage to the watercourse. Implementation of reparation orders and expiation fees for legislative breaches.
- Facilitation of expanded interstate water trade between South Australia and Victoria agreed.
- Assessment of all River Murray water licence applications against the Water Allocation Plan (WAP) criteria, including salinity impact

- assessments in support of South Australia's salinity zoning policy.
- Ongoing facilitation of River Murray wetland watering through the issue of short and long term water allocations recognising the needs of individual wetland areas as identified through individual wetland management plans.
- Prescription of the water resources in the Eastern Mount Lofty Ranges on 8 September 2005.
- Draft concept statement for the Eastern Mount Lofty Ranges WAP released for public consultation on 29 May 2006.
- Detailed hydrological, hydro-geological and ecological studies in the Eastern Mount Lofty Ranges to determine the capacity of the water resources, environmental water needs and support future actions progressed.

CASE STUDY

ENVIRONMENTAL WATER DONATIONS

In response to community interest in donating water for the environment, the South Australian Murray-Darling Basin Natural Resources Management Board (SA MDB NRM Board), through the River Murray Environmental Manager, has established a process that enables water donations to be made on a temporary or permanent basis to be used on accredited environmental watering projects.

Voluntary water donations provide a significant resource that can be accessed specifically to improve the health of the River Murray, its floodplains and wetlands. The donation of water is eligible for a differential levy refund from the SA MDB NRM Board, depending on when the donation is made and the ability to plan for its use. In addition,

stamp duty is exempted on the transfer of a water licence or allocation, where the transfer is a donation to an environmental licence.

During 2005/06, water donations were made by a number of donors and provided a range of environmental benefits. These included:

- Bookpurnong irrigators donated water to a Bookpurnong floodplain watering trial, supplemented by water donated by the Minister for the River Murray (see photo below)
- Akuna Station donated water to enable filling of the Akuna Wetland
- Fosters Wines Ltd donated 1
 gigalitre of water to enable filling of
 the Markaranka wetland (see case
 study on page 17)
- SA Water donated 5 gigalitres of water to enable continuous fishway releases during the critical fish spawning and recruitment period between September 2005 and February 2006.



03

PROTECTING THE RIVER

A number of activities have been undertaken to protect the River Murray from processes that have a detrimental impact.

Measures that reduce salinity impacts to the River through the continued operation of current Salt Interception Schemes (SIS) and ongoing development of the overall salinity management program have progressed throughout 2005-06.

Investigations into new SIS have occurred in the Murtho and Pike districts. These investigations have been jointly funded under the National Action Plan for Salinity and Water Quality (NAP) and the Murray-Darling Basin Commission. South Australia's share of the Commission's annual budget is contributed to by the Save the River Murray Fund (see Program Statement).

Construction of the Bookpurnong Salt Interception Scheme was completed. The scheme's capacity has been reduced due to the aluminium clogging of some bores that require further investigation.

Implementation of the Salinity Zoning Policy began on 1 July 2005. The policy establishes high salinity impact zones, low salinity impacts zones and salt interception zones. The aim of the policy is to encourage irrigation development to low salinity impact zones or salt interception zones. The policy directs irrigation development away from high-risk zones and holds the line on River Murray salinity. It sets the rules regarding where water can be traded within South Australia in terms of salinity impacts and available salinity credits.

In relation to the Salinity Zoning Policy, the Department of Water, Land and Biodiversity Conservation:

- developed information technology and management systems to implement the policy;
- developed and implemented a wide and effective communications strategy;
- improved the administrative protocols;
- established a process for the ongoing evaluation of the policy; and
- posted a variety of documents (including fact sheets, maps, methodologies and policies) regarding the Salinity Zoning Policy on the Department of Water, Land and Biodiversity Conservation website (www.dwlbc.sa.gov. au/murray/salinity/zoning.html).

The River Murray Act 2003 Implementation Strategy was completed and approved. The aim of the act is to ensure that all reasonable and practical measures are taken to protect, restore and enhance the River Murray in recognition of its critical importance to South Australia.

- Salinity Zoning Policy was implemented on 1 July 2005.
- Construction of the Bookpurnong Salt Interception Scheme was completed.
- Construction of the Loxton SIS
 project continued with the
 completion of the Stage 1 pipelaying contract. The construction
 of a directional bore has been
 completed. Murray-Darling Basin
 Ministerial Council agreed on new
 cost sharing arrangements.
- Draft submission on the proposed Murtho salt interception scheme was prepared for initial consideration by the Murray-Darling Basin Commission.
- Salt interception investigations also continued at Pike, Chowilla, Salt Creek, Woolpunda and Waikerie.
- Aquaculture policy was developed for the use of salt interception scheme water for inland aquaculture.
- Salinity credit and debit assessment for 2004-05 was completed in preparation for review and formal transmission to the Murray-Darling Basin Commission and Murray-Darling Basin Ministerial Council.
- South Australia is accountable for actions that have an impact on the salinity of the River Murray, and all actions have been assessed, recorded and reported on the Salinity Registers.
- The Salinity Assessment Database
 has been maintained and updated
 as required to ensure that South
 Australia is able to accurately report
 on the salinity impacts of new
 irrigation developments.
- A performance evaluation framework was established to assess if the objectives of the salinity zoning policy were being met, and whether the policy was being implemented

- effectively. Performance indicators for monitoring and reporting requirements have been identified and a final report is due for completion and implementation by October 2006.
- At a basin-wide level, it has been recognised that there needs to be better integration between the Living Murray Initiative (TLM) and the Basin Salinity Management Strategy programs. South Australia contributed to the preparation of a draft scoping paper on this issue.
- Actions under The Living Murray Initiative have the potential to have salinity benefits (i.e. increased flows) as well as potentially cause increased salinity in the River (i.e. return flows to the floodplains). A draft discussion paper on the salinity impacts of TLM, with a particular focus on the Chowilla floodplain commenced
- The milestones in the South Australia Salinity Strategy 2001-2015 were reviewed. The review of the milestones will provide the basis for a major review of the Strategy in 2006-07.
- Completion of an Implementation Strategy and development of underlying policies for the River Murray Act 2003.
- Finalisation of the SA River Murray Drought Response Policy.

CASE STUDY

BOOKPURNONG SALT INTERCEPTION SCHEME

The scheme has been 10 years in the making with extensive community consultation and hydrogeological testing and is the next step in salt-proofing the River Murray in South Australia.

The Bookpurnong scheme will intercept 50 tonnes of salt a day at a pumping rate of 45 litres a second, or more than an Olympic-sized swimming pool a day. By 2035, this will rise to 110 tonnes of salt a day.

Salt interception is an investment for our future. These schemes underpin a sustainable Riverland economy and environment in an area of Australia that is at great risk of salinisation.

The Bookpurnong project originated from community concern that its irrigation development was impacting on the river environment. The community foresaw the risks of salinity damage to the local environment and River Murray.

Salt interception is a simple concept. Holes are drilled in the aquifer and pumps, connected to a pipeline that transfers the saline groundwater to a more remote and secure location. In reality, the process is much more complex requiring hydrogeological studies and groundwater modelling plus extensive negotiations with community and landholders near the vicinity of where the saline water will be relocated.

The launch of the scheme was held in September 2006 on the banks of the River Murray at Lock 4 and attended by over 140 people, including many from the local community.

This project is a living example of the community, the Murray-Darling Basin Commission, Federal Government, State Government and SA Water all working together to achieve a healthier more sustainable River Murray.



04

ENHANCING THE ENVIRONMENT

In recent times there has been increasing awareness of the value of the River Murray to South Australia from a range of perspectives. Economically, the River Murray supports vibrant and productive agricultural production, it functions as a significant recreational resource and it is, in itself, a complex and rich ecosystem.

Biodiversity values are much harder to restore or replace than they are to retain. The maintenance of functioning ecosystems is a critical component of integrated resource management in the region.

The region features a variety of wetland systems and types that perform various functions for the River and many of these are recognised as being of national and international significance. Programs and activities to maintain these environments have been undertaken throughout 2005-06.

The actions that have occurred during 2005-06 have continued to recognise the River Murray system as an integrated and connected ecosystem. Broader objectives and programs, including those led by the Murray-Darling Basin Commission have also been adopted by South Australia.

A number of environmental watering projects have been undertaken to enhance the floodplain environment and manage the impacts of drought on these, now fragile, ecosystems.

In 2005-06 South Australia has successfully undertaken a number of initiatives to improve the River Murray environment. Of particular note have been the projects developed and actions implemented under: River Red Gum Rescue, Weir Pool Raising and Barrage Releases for ecological health improvements.

River Red Gum Rescue

This project has seen 40 high priority floodplain and wetland sites receive approximately 7.2GL of water from environmental water donations and Snowy-Murray water savings. Some of the sites that were watered throughout 2005-06 have already showed a 90% improvement in vegetation health. Water was delivered to these areas by gravity feed or in some cases, pumping.

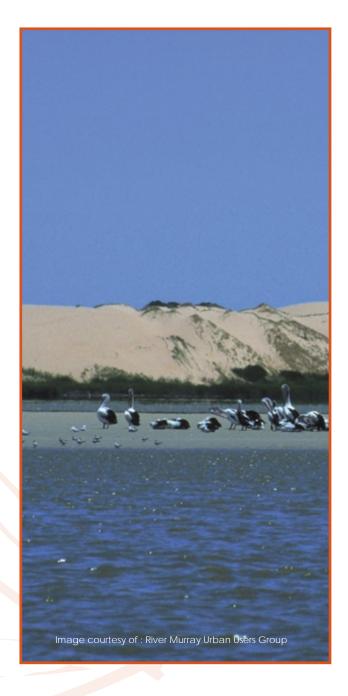
Weir Pool Raising

Two Weir Pool Raising events were initiated in 2005, with the first being between March and May 2005. The Lock 6 weir pool was raised for two weeks to provide stressed River Red Gums (and other fringing vegetation) with water. The second event occurred between September and December 2005. Locks 1, 4, 5 and 6 were raised concurrently to enhance the benefits of an Above Entitlement Flow. Localised ecological improvements in the health of a range of floodplain vegetation species occurred.

Barrage Releases

Environmental releases were made at the barrages during 2005-06. This resulted in fish spawning and recruitment, improvements in mudflat health and estuarine condition. Approximately 770GL of water was released at the barrages during this period, a volume that included a donation of 5GL from SA Water.

- Processes developed to aid water donations to the environment (complementary actions undertaken in Section 1, Returning Water to the River).
- Finalisation of the Coorong Health Check document.
- 40 high priority floodplain and wetland sites along the River Murray in South Australia watered by either pumping or gravity feeding. All sites have shown a significant ecological response to the watering.
- Approximately 770 GL of environmental water releases were made at the barrages resulting in fish spawning and recruitment and localised ecological improvements in estuarine, vegetation and mudflat health.
- Fishways at Tauwitchere and Goolwa barrages remained continuously open from July 2005.
- A weir pool raising event was undertaken between September and December 2005 when Locks 1, 4, 5 and 6 were raised concurrently to enhance the environmental benefit of an above entitlement flow.
- The River Murray Environmental Manager Unit of the South Australian Murray Darling Basin Natural Resources Management Board established a partnership with Fosters Pty Ltd and the Commonwealth Government to undertake an environmental watering of the Markaranka Floodplain. There was a positive response in tree health and fringing vegetation with hundreds of water birds recorded at the site.
- Dredging of the Murray Mouth continued throughout 2005-06.
- Wetland management plans continued to be developed with 13 accredited. A total of 26 wetland management plans have been assessed by the South Australian River Murray Wetland Technical Group.
- A review of the Ramsar Management Plan for the Coorong and Lakes Alexandrina and Albert commenced with the development of a report into the Ecological Character of the Coorong, Lakes Alexandrina and Albert Wetland of International Importance.



CASE STUDY

BARRAGE RELEASES

From July 2005, environmental water has been continuously released through the Tauwitchere and Goolwa fishways. These releases have been critical in maintaining native fish movement between Lakes Alexandrina and Albert and the Coorong, and enabling fish spawning and recruitment to occur. Around 10,000 native fish were captured and released during a study of fish movement in January and February 2006, indicating that the fishways are being successfully used by many fish species.

During 2006, additional environmental water releases were made over the barrages, providing an attractant flow for fish while also increasing the area of the River Murray estuary downstream of the barrages. Vegetation around Boundary Creek showed a positive response to freshwater flows. Other benefits included localised ecological improvements in vegetation and mudflat health.

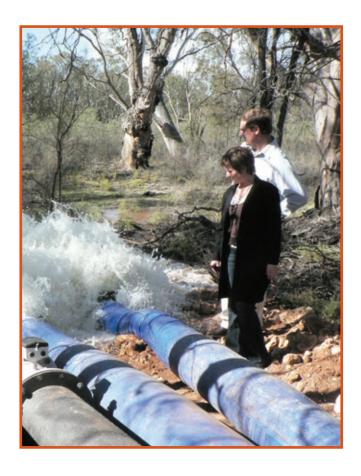


CASE STUDY MARKARANKA INDUSTRY PARTNERSHIP

In May 2006, the South Australian Murray-Darling Basin Natural Resources Management Board (SA MDB NRM Board) established a partnership with Fosters Wine Estates and the Commonwealth Government to undertake a watering project at the Markaranka Floodplain. The site, owned by Fosters Wine Estates, is under a Heritage Agreement and has not been grazed since 1992. The floodplain had not experienced a watering event since 2000.

The site consists of three temporary lagoons totalling around 90 hectares and is fringed by River Coobah thickets and large mature River Red Gums, providing high habitat value for birds, mammals and reptiles

Fosters Wine Estates donated 1000 megalitres (or 1 gigalitre) of water to the Board to be used at the Markaranka site. The Commonwealth Government provided \$150,000 funding to be used for pumping and construction of temporary embankments to enable watering of the site. Local community members provided monitoring support at the site.



This is the first industry/Commonwealth/ State/community partnership under the newly established function of the River Murray Environmental Manager within the SA MDB NRM Board. Industry partnerships are critical to delivering environmental outcomes for the River Murray.

It is hoped that this partnership will be ongoing, and provide a model for future partnerships. Long-term management arrangements for the site are being pursued.

BUILDING CAPACITY

South Australia's Strategic Plan places a strong emphasis on building strong community networks and enhancing information transfer. This is being achieved through capacity building. Capacity building generates knowledge and skills that enable people to responsibly manage their natural resources. Such knowledge allows them to actively participate in determining priorities in their individual and collective social, economic and environmental futures.

A strategic knowledge management approach provides a framework to support the long-term management of the River Murray. By managing within such a framework, decisions are informed by the most immediate and relevant scientific and economic analyses. Integrating this technical knowledge increases the ability to achieve positive ecosystem outcomes throughout the South Australian Murray-Darling Basin and in upstream areas of strategic importance to the State.

Significant capacity has been built by directly funding research and investigations and through improving research networks. This generates new knowledge that is used to improve environmental management outcomes, inform water policy and strengthen the State's position in major Murray-Darling initiatives within the Murray Darling Initiative and the National Water Initiative.

Innovative management systems and technologies in areas such as environmental flows, water trade and water use efficiency will continue to be pursued to enable irrigators, water and environmental managers to respond to challenges presented by climate change, salinity and water allocation policy.

The Minister for the River Murray opened the South Australian Murray-Darling Basin Resource Information Centre (SAMRIC) in November 2005. Located at the Loxton TAFE, SAMRIC is a

joint venture between private and public sector organisations with a common interest in sharing information between the group's members. The centre provides a focal point for the cooperative collection, integration and accession of data and information which otherwise would remain within specific agencies and in a range of not necessarily compatible and consistent formats. SAMRIC makes spatial information regionally available to industry groups, natural resource managers, and the community. An integral part of SAMRIC's operations is the website (www.samric.org.au) that promotes the business and contains information about current activities and services.



- Completion of a river-wetland-groundwater interaction tool within the Department of Water, Land and Biodiversity Conservation to model and assess the salinity impacts of wetland management.
- The South Australian Murray-Darling Resource Information Centre (SAMRIC) was launched in November 2005.
- Construction of a working Digital Terrain Model for the entire River Murray in South Australia.
- Production of digital, ortho-rectified satellite imagery enabling irrigation baseline information to be updated and assist in ongoing monitoring of floodplain health.
- Provision of modelling and technical advice regarding the proposed Lake Albert -Coorong Channel.
- Review of the technical merit of interstate CAP audit report.
- Preliminary investigations for a hydraulic model for the Lower River Murray.
- Participation in ecological and hydrological research partnerships with: e-Water CRC; CSIRO Land and Water; the School of Earth and Environmental Sciences, and the School of Civil and Environmental Engineering at The University of Adelaide and the Flinders Research Centre for Coast and Catchment Environments at Flinders University.
- Extensive use of the Flood Inundation Model to generate areas of inundation based on specific operating rules. These outputs were used in conjunction with vegetation type, vegetation health and Floodplain Risk Methodology risk datasets to determine any benefits from this inundation.
- GIS mapping of the Lower Lakes/Coorong/ Murray Mouth Icon Site, and the Chowilla Floodplain Living Murray Icon Sites.
- GIS mapping of Chowilla watering sites.
- Determination of the volume and surface area figures for watering sites to assist in the planning and appropriate placement of banks on the Chowilla floodplain.

- Mapping the positioning of gravity-fed pipelines between wetlands and watering sites on the Chowilla floodplain using a range of GIS data.
- Irrigation Recording and Evaluation System (IRES) software development to enable irrigation water to be precisely monitored and evaluated during the irrigation season. Approximately 70 growers have undertaken software training and are using IRES for their irrigation operations.
- In collaboration with growers and catchment managers, techniques for monitoring deep drainage from the root zone and tools for evaluating the efficiency of salt displacement from the root zone during leaching are being developed.
- Development of methods to reduce the yield loss of potatoes under sprinkler irrigation of saline water.
- Investigation of remedial solutions to serious soil degradation, salinisation and sodicity associated with drip irrigation in some vineyards.
- Participating in national climate variability initiatives to better understand current variability and quantify possible climate change scenarios and potential effects on the wine grape industry and dryland cereal farmer.
- Developing models to understand the response of crop physiology to climate variability.





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Minister for the River Murray, Karlene Maywald, formally launched the South Australian Murray-Darling Basin Resource Information Centre (SAMRIC) in November 2005 at the TAFE campus in Loxton. SAMRIC will allow individuals and groups to gain improved access to information in a coordinated and confidential way within a local based centre. The establishment of SAMRIC is a significant step in making information available to industry groups, natural resource managers, and the community in the region.

The Centre will virtually be a 'one stop' shop for anyone looking to set up a local business. It will provide research and information on a wide range of subjects, including natural resource management, infrastructure, planning, vegetation, soil structure, salinity, rainfall and power.

Inaugural members of SAMRIC include representatives from:

- SA Murray-Darling Basin Natural Resources Management Board
- SA Department of Primary Industries and Resources
- SA Department of Water, Land and Biodiversity Conservation
- Riverland Development Corporation
- Murraylands Regional Development Board, and
- Fleurieu Regional Development Board.





PROGRAM STATEMENT FOR THE PERIOD ENDED 30 JUNE 2006

DEPARTMENT OF WATER, LAND AND BIODIVERSITY CONSERVATION SAVE THE RIVER MURRAY FUND PROGRAM STATEMENT FOR THE PERIOD ENDED 30 JUNE 2006

		Note	2006 \$'000	2005 \$'000
		Note		
Funds held at 1 Jul	ly		11,605	4,683
RECEIPTS		1		
	Recurrent Appropriation		21,711	17,641
	Other Revenue	2	126	0
	Cities Revenue		120	
Total Receipts			21,837	17,641
PAYMENTS				
1	Implementation of Water Allocation Plan		1,496	1,207
2	Investment in Salinity Accountability		173	176
3	Review of the costs Associated with Managing the River Murray in SA		0	22
4	River Murray Act		467	398
5	MDBC State Contribution		3,643	3,460
6A	Environmental Flows & Wetland Management		780	580
6B	Modelling Assessment		219	235
7	Prescription of Eastern Mount Lofty Ranges		627	426
8	Investing in River Murray Ecology		150	150
9	Upgrade of Riverland Drainage Disposal System		108	89
10	Upgrade of River Murray Waste Disposal Stations		188	212
11	River Murray Select Committee - Drought Management & Other Recommendations		170	204
12	Improved Information Management		276	375
13	Water Acquisition for Environmental Flows	3	16,120	0
14	Save the River Murray Levy Flyers		9	0
15	MDBC Independent Commissioner		28	0
16	E-Flows and Wetland Management	4	87	1,762
17	Irrigation Research, Technology Diffusion and Education		1,200	1,250
18	Water Quality Improvement		500	150
19	Rebates - Administration Costs	5	0	23
Total Payments			26,241	10,719
Net Increase in Funds			(4,404)	6,922
Funds held at 30 June			7,201	11,605

NOTES TO AND FORMING PART OF THE PROGRAM STATEMENT.

1 Fund Purpose and Funding

The "Save the River Murray Fund" (The Fund) is established under Section 100 of the *Waterworks Act*, 1932. The major purpose of The Fund is to provide funds for programs and measures to improve and promote the environmental health of the River Murray or ensure the adequacy, security and quality of the State's water supply from the River Murray. The Fund contributes to the excess of the State's contribution to the Murray-Darling Basin Commission and may be used to provide rebates (including administration costs) in particular cases.

Revenue collected from the Save the River Murray levy is paid into the Fund through the provision of appropriation from the Consolidated Account. The fund is not interest bearing.

(a) Future Developments in Financial Reporting

Establishing the Save the River Murray Fund (STRMF) as a separate general-purpose reporting entity, where separate statements would be prepared and then consolidated with the Department (newly defined), recognising that the latter retains control. This is intended to improve the overall 'understandability', an essential qualitative characteristic of financial reporting. Recent transactions in respect of water license transfers have further emphasised the need for separation of reporting. This reporting relationship is not provided for in existing statutory arrangements.

(b) Goods and Services Tax (GST)

Generally transactions through the fund are included under the grouping provisions of the GST Legislation. Under grouping provisions, the Department of Water, Land and Biodiversity Conservation (DWLBC) is responsible for the collection of GST on sales and payment of GST on purchases. The DWLBC received and paid these monies to the Australia Tax Office.

2 Other Revenue

A refund of \$126,000 was received from the Department for Environment and Heritage in 2005-06 for an overpayment made in relation to GST in 2004-05.

3 Water Acquisition

The purchase of water allocations from individual irrigators and subsequent transfer of 564,420 KL of water allocation to The Living Murray occurred on 30 June 2006. This licence transfer has resulted in a present obligation on the part of DWLBC to make a payment of \$762,102 being the consideration payable in respect of the vendor's allocation. Consequently, an expense for the \$762,102 was accrued and shown in the financial statements of the DWLBC. Payment was made in 2006-07 and will be reflected in the Fund in 2006-07.

4 E-Flows and Wetland Management

An additional amount of \$52,784 was accrued as an expense at 30 June 2006 in the Program and subsequently paid to the Department for Environment and Heritage in 2006-07.

5 Rebates - Administration Costs

In 2004-05 DWLBC engaged SA Water to administer the rebates scheme.

Save the River Murray Contributions Fund

A separate fund, Save the River Murray Contributions Fund, has been established to receive contributions where there is no obligation to pay the Save the River Murray Levy. The separate fund was created because the legislation that established the Save the River Murray Fund only provided for revenue to be received from the Save the River Murray Levy.

The funds received in the Save the River Murray Contributions Fund will be applied for the same purpose as the Save the River Murray Fund. The balance of funds held in the Save the River Murray Contributions Fund at 30 June 2006 was \$4,415.



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