



**Government of South Australia**

Department of Water, Land and  
Biodiversity Conservation

# ANNUAL REPORT 2009-10

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DEPARTMENT OF WATER, LAND AND BIODIVERSITY CONSERVATION  
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Copies of the annual report are available from:  
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30 September 2010

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30 September 2010

The Hon Paul Caica MP  
Minister for Environment and Conservation  
Minister for Water  
Minister for the River Murray  
Parliament House  
North Terrace  
ADELAIDE SA 5000

Dear Minister

I have great pleasure in submitting the former Department of Water, Land and Biodiversity Conservation's Annual Report for the financial year ending 30 June 2010.

This report has been prepared in accordance with the:

- *Public Sector Act 2009*
- *Public Sector Regulations 2010*
- *Freedom of Information Act 1991*
- *Whistleblowers Determination Act 1993*
- *Public Finance and Audit Act 1987*
- The Department of the Premier and Cabinet Circular PC013 – *Annual Reporting Requirements*.



Scott Ashby  
**Chief Executive**  
**Department for Water**

# Chief Executive's Statement

The Department for Water was formed on 1 July 2010 to lead the management of South Australia's water resources. This will be the final Annual Report for the Department of Water, Land and Biodiversity Conservation (DWLBC).

During the past eight years, our Department has played a key role in ensuring the ongoing sustainability of South Australia's natural resources to achieve positive social, economic and environmental outcomes.

Following the 2010 State Election, our Department became responsible to the Honourable Paul Caica as Minister for Environment and Conservation, Minister for Water, and Minister for the River Murray. I would like to acknowledge the efforts of our former Ministers, the Honourable Jay Weatherill and the Honourable Karlene Maywald, who worked closely with our Department and displayed great leadership.

A major focus during 2009-10 was the implementation of key actions in the *Water for Good* plan, which was launched by the Premier in June 2009. This Plan includes 94 key actions to guarantee South Australia's water security, diversify our water sources and reduce our reliance on the River Murray. I am proud to report that we have helped to progress or complete more than 90 percent of those actions.

A key initiative under the plan is a \$150 million investment in stormwater harvesting, following successful Commonwealth funding bids driven by our Department. Along with other committed schemes, these new projects will help to more than triple the State's annual stormwater harvest from 6 GL (gigalitres) to more than 20 GL.

Our Department is helping to progress new water industry legislation. When introduced to Parliament in 2010-11 it is likely to be the most significant overhaul of water industry legislation in the State's history.

Within the research arena, the Department has been one of the driving forces behind the new \$50 million Goyder Institute for Water Research. This Institute will be established in Adelaide to provide an enhanced science capacity to help secure and manage the State's water supply, while also positioning South Australia as a world leader in water innovation and science.

During 2009-10, the Department continued to manage many of the challenges posed by the ongoing drought across the Murray-Darling Basin. Our monitoring and modelling informed the tough decisions that had to be made about how to share the limited amount of River Murray water flowing into South Australia between different uses. This work also informed how to best utilise the extra water that became available in early 2010 as a result of flooding across the northern Murray-Darling Basin.

The Department also managed large infrastructure projects to protect the environment and local communities. The Goolwa Channel Water Level Management Project included the construction of two regulators to protect the Goolwa Channel, Finniss River and Currency Creek from devastating acidification.

An irrigation pipeline from Jervois to the Langhorne and Currency creek regions was completed, as was a pipeline to carry potable water to communities at Langhorne Creek, the Raukkan Aboriginal Community, the Narrung and Paltalloch Peninsulas, and Point Sturt and Hindmarsh Island. These projects were part of the State Government's *Murray Futures* program.

Extensive work was also undertaken by the Department in its role leading the State Government's response to the danger of riverbank collapse downstream of Lock 1 in the River Murray. This work included monitoring, remediation works and an extensive public education campaign.

The sensible management of our State's water resources is paramount to ensure a fair distribution of water to all users. In particular, our Department was integral in the preparation of the Western Mount Lofty Ranges Water Allocation Plan, which is expected to be released for public consultation in mid 2010-11, providing the community the opportunity to have its say.

In a major win for both the environment and agriculture in the South East, more than 14 GL of water was released into the Coorong via the new Upper South East drainage system. Our Department led the construction of this significant infrastructure project in the region, with most major works on the drains now complete and helping to remediate saline land and provide flood protection. This will increase agricultural productivity and return water to regional wetlands and the Coorong.

The Department has been a leader in providing technical and scientific expertise in the development of sustainable and sensible water policy for the State's groundwater and surface water resources. We have worked to enhance our capabilities to monitor and review the condition of these valuable water resources, particularly in response to changing climatic influences and water consumption demands.

Our Department also launched the landmark publication *The Soils of Southern South Australia*. This publication presents, in one volume, information and data regarding the soil types and characteristics of South Australia's agricultural areas. It was co-authored by past and present departmental soil scientists David Maschmedt, James Hall and Bruce Billing.

The State Government's focus on community-based and community-led natural resources management work has continued, largely through our close liaison with regional Natural Resources Management (NRM) boards to improve on-ground delivery. We have worked with the boards to raise community awareness of key biosecurity issues such as controlling weeds, as well as feral animals which are a major threat to our State's rangelands biodiversity, Aboriginal cultural sites and community infrastructure.

In 2009-10, the Department developed partnership projects and joint funding arrangements with the boards and farming organisations under the Sustainable Dryland Agriculture Initiative (funded by the State NRM Program). While soil protection was a focus of all projects undertaken, a decision support framework was also developed to help landholders manage climate change.

In partnership with the South Australian Country Fire Service, through the Native Vegetation Council, we have rolled out new native vegetation clearance rules relating to bushfire preparedness. These simple rules guide landholders in preparing their properties for each bushfire season, while retaining native vegetation.

A major review of information technology in the Department resulted in our agency becoming a government-sector leader within this space. Our Strategic Information Plan and Strategic Technology Plan have improved organisational performance and provided a higher level of modelling capability for the State's natural resources management programs. Achievements in this area include the development of a Surface Water Telemetry Viewer web application that provides ready access to real-time data and information from surface water monitoring sites within our State and into New South Wales and Victoria.

I commend the professionalism and dedication of DWLBC staff during 2009-10, including those in the areas of licensing, compliance, science and administration, in achieving our statutory responsibilities.

Several functions of the Department were transferred to other State Government departments from 1 July 2010. I am extremely proud to have led the Department of Water, Land and Biodiversity Conservation for the past two years, and am confident that its achievements will benefit South Australia for many years to come.



Scott Ashby  
**Chief Executive**

# Highlights of 2009-10

The Department's key 2009-10 achievements are highlighted below. Further information about each highlight can be found in the body of this report, under the relevant Program.

## **Program 1 - Natural Resources Management**

### **Water Management in the Western Mount Lofty Ranges**

The draft Western Mount Lofty Ranges (WMLR) Water Allocation Plan (WAP) was developed in 2009-10 and will be released for public consultation in mid 2010-11.

Temporary water authorisations have been issued to about 99 percent of water users in the WMLR. These authorisations have allowed existing users to continue their operations during the Notice of Prohibition, which remains in place until the Water Allocation Plan is adopted. Existing users are authorised on the basis of their past irrigation activities in the three years prior to the Notice of Prohibition. During 2009-10, 151 well construction permits were processed, 344 licence applications assessed and 45 authorisations transferred or varied.

### **Goyder Institute for Water Research**

The Department took a lead role in the establishment of the \$50 million Goyder Institute for Water Research as part of enhancing the research capacity available to the State. This Institute will be established in Adelaide to provide an enhanced science capacity to help secure and manage the State's water supply, while also positioning South Australia as a world leader in water innovation and science.

### **Scientific Guidance for Sustainable Water Policy**

Technical and scientific advice was provided to regional Natural Resources Management (NRM) boards and the State NRM Council via the development and/or review of water allocation and NRM plans at both the State and regional levels. This advice has been provided at a time when there are challenging issues confronting water resource managers and communities alike. Advice provided by the Department has enabled policy makers to balance the competing demands in water resource management to develop sensible water allocation policies which will lead to increased security of water resources for the future.

### **Securing Water Supplies for Communities**

The Department has worked with SA Water to deliver a groundwater drilling and testing program to develop additional water supply capacity for the townships of Quorn and Wilmington, and the remote community around Nepabunna. Drilling and pump testing have confirmed that additional water supply capacity has been successfully secured to the benefit of these communities for the future. The Nepabunna project was a finalist in the 2009-10 Premier's Public Sector Awards.

### **Working with Indigenous Communities**

The Department collaborated with the South Australian Arid Lands NRM Board, the South Australian Native Title Unit and Aboriginal people of the Gawler Ranges to manage water resources, aquatic ecosystems and community engagement relating to cultural land management in the arid and semi arid regions of South Australia.

This joint project identified culturally and ecologically significant rock holes in the Gawler Ranges, an area registered under an Indigenous Land Use Agreement which acknowledges the different rights and interests that parties have in relation to land and water.

### **Significant Technical Work**

A series of wells were installed as part of the Loxton Salt Interception Scheme (SIS) to intercept and prevent highly saline groundwater from continually discharging and adversely affecting water quality conditions in the River Murray.

A three-year modelling project funded under the National Water Initiative was delivered, to assess the impact of land use, in particular plantation forestry, on the water requirements of the Fleurieu Peninsula Swamps. This nationally-listed wetland ecosystem is listed as a critically endangered ecological community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

A major review of the groundwater resources of the South East was also completed under a National Water Commission supported project to better understand the nature of the regional groundwater aquifers, update resource knowledge to a greater level of currency, improve assessment of regional water availability and to develop adaptive management options for the water resources of the region.

Funding provided through the Commonwealth Great Artesian Basin Sustainability Initiative Phase 3 'Whole of Basin Monitoring Network' enabled work to commence on upgrading 41 monitoring sites for the South Australian portion of the Basin, including the installation of logging and instrumentation to measure pressure, flow and temperature. This work will inform cross-border reporting arrangements and facilitate the development of cross-border management approaches for these important water resources.

Another Commonwealth-funded project improved the knowledge of groundwater flow mechanisms in fractured rock aquifers in the Mount Lofty Ranges, Northern Adelaide Plains and Kangaroo Island. This work was completed as part of efforts to improve the security of water supplies for communities and the environment.

A Bookpurnong research project combined the disciplines of ecology, hydrogeology, geophysics and engineering to deliver innovative floodplain management solutions for significant River Murray environments being faced with deteriorating vegetation condition due to salinisation.

### **Information Management**

During 2009-10, the Department reviewed its existing Information and Communication Technology (ICT) capability and developed a Strategic Information Plan and a Strategic Technology Plan. It was determined that a new business-focussed approach should be taken to ensure ICT supported the business needs of the Department. The focus was to ensure consistency in delivery of information services and that the underpinning technology adequately supports the business.

In January 2010, the Department's desktop environment was refreshed for 850 users, improving organisational performance and positioning the Department to provide a higher level of modelling capability for the State's natural resource management programs.

With the expanding use of data loggers and telemetry systems to monitor resource conditions, a Surface Water Telemetry Viewer web application was launched. This system displays near real-time data and information from surface-water monitoring sites within the State (including Central and Far North regions) and at key sites in New South Wales and Victoria.

### **Investing in Water Information**

The Department sought funding opportunities to increase the level of investment for projects that increased information and monitoring assets that service the public, government and scientific community. Monitoring and information management infrastructure was significantly upgraded with Commonwealth funding administered by the Australian Government's Bureau of Meteorology, which provided \$3.03 million during 2009-10.



## Assessing Risk for Vulnerable Ecosystems

A preliminary risk assessment of water-dependent ecosystems was delivered in phase one of a project focussing on ecosystems vulnerable to competing demands such as groundwater and surface water development in South Australia.

## New Groundwater Initiative

A major new groundwater initiative began in 2009-10 to enhance the State's leadership in groundwater management. Funded through *Water for Good*, this important initiative is being delivered through four integrated programs:

1. **State Groundwater and Water Monitoring System Program:** to review, assess and enhance the effectiveness of monitoring arrangements for the State, and develop appropriate capital works programs to ensure ongoing maintenance and enhancement where required.
2. **Groundwater Resource Assessment Program:** to provide regular reviews of the condition of the resource, particularly in response to changing climatic influences and consumption demands. Surveillance of those water resources considered as being of strategic significance or at high risk will be increased.
3. **New Knowledge for the Future Program:** to better enable water managers to facilitate sustainable industry development, and improve water planning and allocation decision-making.
4. **Communication and Information Management Program:** to improve the availability of water information for water managers, industry, educators and the broader community.

## Forests – Water Policy Development

In July 2009, the Minister for Environment and Conservation and the Minister for Forests, together with the Chief Executives of DWLBC and PIRSA, hosted a briefing at Parliament House for key stakeholders from industry and government to discuss a State-wide policy framework for *Managing the water resource impacts of plantation forests*. The Department and the South East NRM Board provided further briefings and information sessions to representatives from the agricultural and forestry industries in Mount Gambier in late August and early September 2009.

The State-wide policy framework was developed by the Water and Forests Interdepartmental Committee with substantial executive support from the Department. The committee continued to meet until late 2009 to work on the framework, and to examine water allocation planning processes under the *Natural Resources Management Act 2004*. It proposed policies and technical information for a draft water allocation plan for the Lower Limestone Coast Prescribed Wells area.

## Native Vegetation and Bushfire

The devastating fires in Victoria in 2009 prompted the South Australian government to establish a Bushfire Taskforce to examine government processes that could be changed to improve public safety. The Department participated at an executive level on this taskforce.

Following a Ministerial review of native vegetation and bushfire safety, variations to the *Native Vegetation Regulations 2003* were gazetted in September 2009. Changes to the regulations transferred decision-making for the clearance of native vegetation for bushfire safety purposes to the Chief Officer of the South Australian Country Fire Service (SA CFS) from the Native Vegetation Council (NVC).

The changes include a new regulation which establishes a process for vegetation clearance associated with bushfire protection and management, with much of the decision-making on clearance issues transferred to the SA CFS. Another regulation was amended to allow the clearance of all native vegetation within 20m of a prescribed building or 5m of a prescribed structure without the consent of the NVC.

## **Water Allocation Planning**

Water allocation plans in South Australia are prepared pursuant to the *Natural Resources Management Act 2004*, following prescription of a water resource. The Department assists NRM boards to draft these plans, which contain policies for issuing water entitlements, allocations and the transfer or trade of water, as well as site use and works approvals.

There are 19 water allocation plans in South Australia. These plans must be reviewed within five years of adoption. To date, all plans that have been reviewed have gone on to be amended.

Currently 12 plans are being amended. A new plan was adopted in January 2010 for the Marne Saunders Prescribed Water Resources Area. Two other plans for the River Murray Prescribed Watercourse and the Tatiara Prescribed Wells Area were amended during the year and are operating as second generation plans. Five new plans are being developed.

## **Program 2 - Natural Resources Management (River Murray)**

### **Murray-Darling Basin Reform**

The Department led State Government agency input into the development of the Murray-Darling Basin Authority's proposed Murray-Darling Basin Plan.

The Department supported the Premier and the Minister for the River Murray in negotiating and implementing special water-sharing arrangements as a result of the prolonged drought, and supported the Premier in securing water for the Lower Lakes from floodwaters flowing into the Menindee Lakes in early 2010.

Significant progress was also made in developing new schedules under the Murray-Darling Basin Agreement to give effect to South Australia's right to carryover and store water for critical human water needs and private carryover, and to implement a tiered system for water-sharing during dry periods.

### **Lower Murray Reclaimed Irrigation Areas**

The Lower Murray Reclaimed Irrigation Areas (LMRIA) Program was acquitted in June 2010, with administrative matters to be completed in July 2010. The Department first implemented the program in 2004, with final on-ground works completed in December 2009.

Over the life of the LMRIA Program, it was successful in:

- Designing a 25-year system to improve water use compliance and efficiency for 72 farmers managing 4,038 hectares, including installing 135 water meters, drainage capture and reuse systems;
- Converting to private management the remaining eight government irrigation districts and the 22 private irrigation trusts associated with them;
- Managing a restructure plan to help irrigators exit the industry or consolidate their enterprises, including preliminary farm business planning for individual farmers;
- Assisting the sustainability of agriculture on the floodplains;
- Reducing water application rates, conservatively from 26ML to 10ML per hectare, saving a total of 64,600 ML per year;
- Reducing *E. coli*, nitrogen and phosphorus counts in run-off water by at least 70 percent; and
- Permanently closing all 135 unmetered sluices in the region's levee banks.

### **Goolwa Channel Water Level Management Project**

Environmental flow regulators were constructed in Goolwa Channel and Currency Creek to protect the region from potentially devastating acidification. About 167,000 cubic metres of material was delivered to a site at Clayton where the Goolwa Channel regulator was completed in August 2009, isolating the channel from Lake Alexandrina. Pumping of water from Lake Alexandrina commenced in August 2009 to raise water levels in the Goolwa Channel.

The Currency Creek regulator was completed in September 2009. In November 2009, the water level in the Goolwa Channel reached the target of 0.7m AHD (Australian Height Datum) on a five-day rolling average. The pumps were then shut down and removed.

The Certificate of Final Completion was awarded to the construction contractor in January 2010 once all plant and equipment had been demobilised.

### **Environmental Flows**

During 2009-10 the Environmental Water Management Unit successfully sought and received 93,131 ML of environmental water for South Australia's River Murray wetlands, floodplains and Lower Lakes.

Water was received via the following programs and initiatives:

- The Living Murray (52,975 ML);
- Commonwealth Environmental Water Holders (29,917 ML);
- Private donations (54 ML);
- Environmental Land Management Allocation (185 ML); and
- South Australian River Murray Drought Water Allocation Decision Framework (10,000 ML).

This water was used at the following high-priority locations throughout the length of the River in South Australia:

- Lake Albert (68 300 ML);
- 3 Lower Lakes wetlands (285 ML);
- 11 Chowilla wetlands (13 690 ML); and
- 19 other wetlands (10 856 ML).

### **Riverbank Collapse**

Riverbank collapse is a new hazard for South Australia along the 210km stretch of the River Murray between Lock 1 at Blanchetown and Wellington. Low water levels have reduced the stability of some sections of riverbank along this stretch of river. The possibility of collapse poses risks to people actually on the riverbank, and to those using the riverbank to tie up a boat or secure a larger houseboat.

During 2009-10 DWLBC coordinated the State Government's response to this new hazard. The Department developed a hazard plan which outlines the responsibilities, authorities and mechanisms to minimise risk to human life and to prevent, mitigate, respond, manage and recover from riverbank collapse incidents along the Lower River Murray in South Australia. The Department also undertook risk assessment, monitoring, and a communication program.

## **Program 3 - Water Security**

### **Water for Good**

During the reporting year, the Office for Water Security was responsible for overseeing the implementation of the State water security plan *Water for Good*. Launched in June 2009, this landmark document is the blueprint for the State's water security to 2050 and beyond.

The Plan aims to provide South Australia with the most secure water supply system, and also seeks to diversify the State's water supplies to reduce reliance on the River Murray and other rain-dependent water sources.

### **Murray Futures**

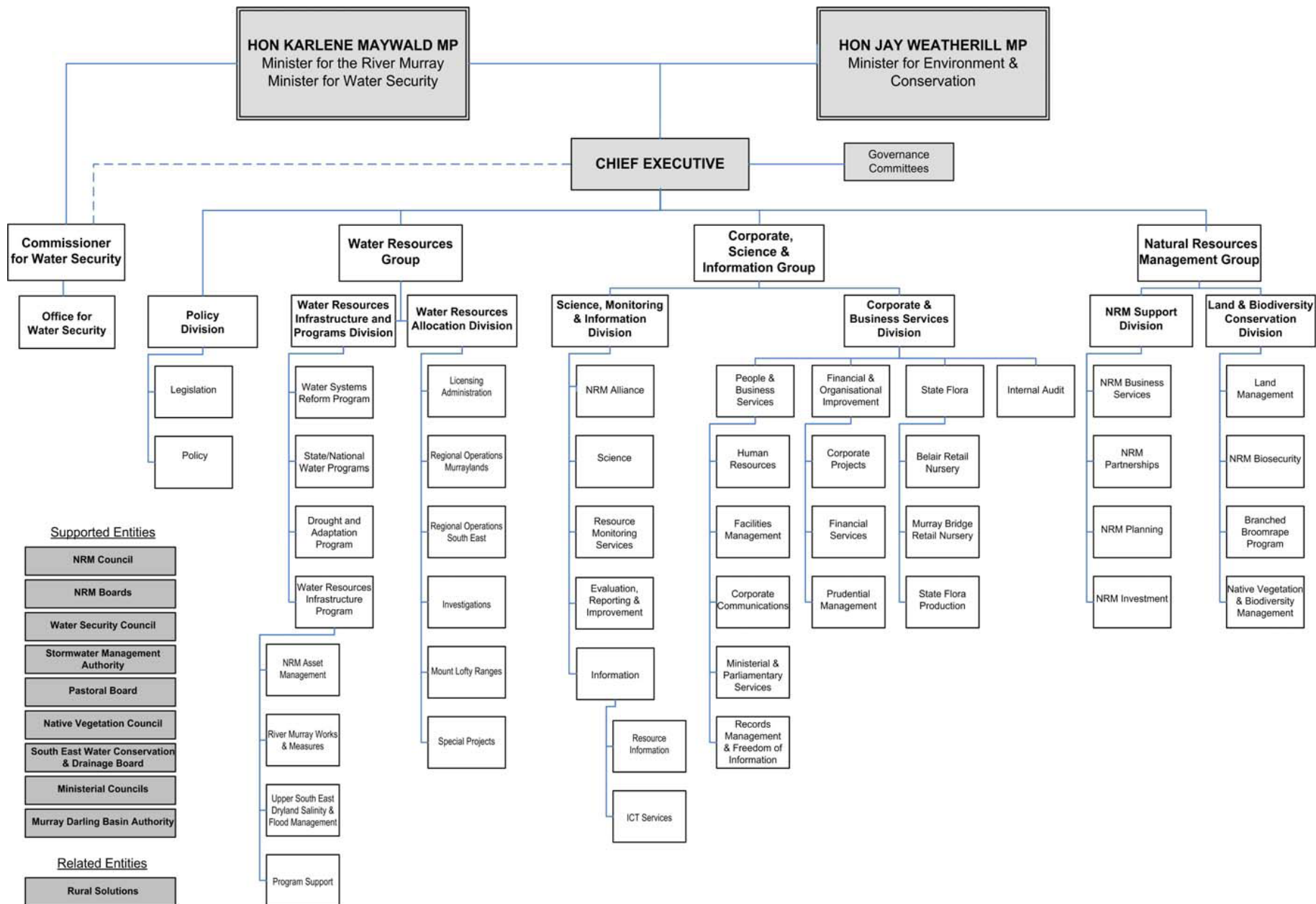
With \$610 million in funding from the Australian Government, the *Murray Futures* program operates under the Australian Government's *Water for the Future* framework, the South Australian Strategic Plan (targets T3.1, T3.9, T3.10, T3.11) and *Water for Good* (Action 54).

South Australia has responsibility for delivering three priority projects over a 10-year period. They are the \$120 million Lower Lakes Integrated Pipeline Network Project, the \$200 million Lower Lakes and Coorong Recovery Project, and the \$100 million Riverine Recovery Project. Two other projects are being delivered by the Australian Government – the Industry Renewal Project (\$110 million) and the Water Buy Back program (\$80 million).

### **Stormwater Program**

In November 2009, the Australian and South Australian Governments announced that eight stormwater projects had been successful in securing funding under round one of the *Special Call for Stormwater Harvesting and Reuse Projects*. The funding is provided through the Australian Government's *Water for the Future* framework, under the *National Urban Water and Desalination Plan*. Seven of these projects form the South Australian Government's stormwater program. The eighth project was put forward independently by the City of Unley.

Together these seven projects will receive more than \$63.7 million in Commonwealth funding and around \$45 million from the State Government, with the balance provided by councils and other partners.



# Role, Functions and Objectives

The Department plays a leading role in ensuring the ongoing sustainability of South Australia's natural resources to achieve economic, social and environmental outcomes.

By providing leadership in natural resources management, the Department enables industry, community and Government to responsibly develop and manage the State's land, water, native vegetation and biodiversity resources.

## Our Vision

*Natural resources used sustainably to enhance quality of life.*

This year, the Department has once again identified specific missions for the key areas in which it works including:

### **Water Resource Management**

Mission: To ensure a reliable supply of water which supports healthy ecosystems, and social and economic prosperity for all South Australians now and in the future.

### **Sustainable Land and Biodiversity Conservation**

Mission: To build better relationships with diverse communities to protect and manage our land and biodiversity, and ensure their long-term sustainability.

### **Integrated Natural Resources Management System and Partnerships**

Mission: To provide a State-wide system that enables successful regional delivery of sustainable and significant natural resources management outcomes.

## Our Functions

The Department fulfils a range of functions which contribute to achieving our missions, including:

- Providing advice and regulatory support to government and the community;
- Facilitating the sustainable allocation and use of the State's natural resources;
- Ensuring secure and sustainable water for communities, including those reliant on the River Murray;
- Monitoring and reporting on the condition of natural resources across the State;
- Developing integrated policy solutions;
- Supporting NRM boards and partners to deliver the natural resources system;
- Protecting ecosystems and production systems from biosecurity threats; and
- Managing our native vegetation.

# Legislation

## Ministry for Environment and Conservation

Administration of the following Acts is committed to the Minister for Environment and Conservation. The Department assists the Minister in the administration of these Acts:

### ***Dog Fence Act 1946***

Provides for the establishment and maintenance of dog-proof fences in the State in order to prevent the entry of wild dogs into pastoral areas.

### ***Groundwater (Border Agreement) Act 1985***

Approves and provides for agreements relating to the management of groundwater adjacent to the border of South Australia and Victoria.

### ***Lake Eyre Basin (Intergovernmental Agreement) Act 2001***

Ratifies and approves the Lake Eyre Basin Intergovernmental Agreement.

### ***Native Vegetation Act 1991***

Provides incentives and assistance to landowners in relation to the preservation and enhancement of native vegetation; and controls the clearance of native vegetation.

### ***Natural Resources Management Act 2004***

Promotes sustainable and integrated management of the State's natural resources; and makes provision for protecting the State's natural resources. It should be noted that specific provisions of this Act relating to the SA Murray-Darling Basin NRM Board have been conferred on the Minister for the River Murray.

### ***Pastoral Land Management and Conservation Act 1989***

Makes provision for the management and conservation of pastoral land.

### ***South Eastern Water Conservation and Drainage Act 1992***

Provides for the conservation and management of water and the prevention of flooding of rural land in the South East of the State.

### ***Upper South East Dryland Salinity and Flood Management (Extension of Project) Amendment Act 2009***

An Amendment Act to provide for a scheme to protect and improve the environment and agricultural production in the Upper South East through the proper conservation and management of water and the initiation or implementation by the Government of works and environmental management programs and other initiatives.

## **Ministry for the River Murray**

The administration of the following Acts is committed to the Minister for the River Murray. The Department assists the Minister in the administration of these Acts:

### ***Groundwater (Qualco-Sunlands) Control Act 2000***

Reduces the risk of water logging, land salinisation and increased levels of salinity in the River Murray, caused by irrigating land in the Qualco-Sunlands irrigation area.

### ***Irrigation Act 2009***

Provides a framework for managing and operating shared infrastructure for irrigation or drainage purposes associated with primary production in the State; makes related amendments to the *Natural Resources Management Act 2004*; and repeals the *Irrigation Act 1994*.

### ***Murray-Darling Basin Act 2008***

Facilitates the operation of an agreement between the Australian Government, New South Wales, Victoria, Queensland, South Australia and the Australian Capital Territory to promote and co-ordinate effective planning and management for the equitable, efficient and sustainable use of the water and other natural resources of the Murray-Darling Basin; to make related amendments to the *Development Act 1993*, the *Groundwater (Qualco-Sunlands) Control Act 2000*, the *Natural Resources Management Act 2004*, the *River Murray Act 2003* and the *Waterworks Act 1932*; to repeal the *Murray-Darling Basin Act 1993*; and for other purposes.

### ***Natural Resources Management Act 2004***

Promotes sustainable and integrated management of the State's natural resources; and makes provision for the protection of the State's natural resources. It should be noted that specific provisions of this Act relating to the SA Murray-Darling Basin NRM Board have been conferred on the Minister for the River Murray.

### ***Renmark Irrigation Trust Act 2009***

Provides for the continuation of the Renmark Irrigation Trust to manage and operate certain shared infrastructure for irrigation or drainage purposes in the area around Renmark; makes related amendments to the *Natural Resources Management Act 2004*; and repeals the *Renmark Irrigation Trust Act 1936*.

### ***River Murray Act 2003***

Provides for the protection and enhancement of the River Murray and related areas and ecosystems.

### ***River Murray Waters Agreement Supplemental Agreement Act 1963***

Ratifies and approves an agreement between the Prime Minister of the Australian Government and the Premiers of New South Wales, Victoria, and South Australia in respect to the waters of the Darling River stored at Menindee in the State of New South Wales in the connected series of lake storages collectively known as the Menindee Lake Storage.

### ***River Murray Waters (Dartmouth Reservoir) Act 1971***

Ratifies and approves an agreement relating to financial assistance for the construction of the Dartmouth Reservoir.



# Relationship with Other Organisations

The Department of Water, Land and Biodiversity Conservation (DWLBC) formed part of South Australia's Environment and Conservation Portfolio for Government administrative purposes. In the reporting year, the portfolio also included the Department for Environment and Heritage, the Environment Protection Authority and Zero Waste South Australia.

In performing its roles, the Department worked closely with other state agencies, including Primary Industries and Resources SA; the Department of the Premier and Cabinet; Department of Trade and Economic Development; Department of Further Education, Employment, Science and Technology; SA Water; Emergency Services; Department of Treasury and Finance; Attorney General's Department; and the Department for Transport, Energy and Infrastructure.

The Department also had a close working relationship with the Natural Resources Management (NRM) Council and supports the State's eight regional NRM boards. The Chief Executive was the employing authority for the Boards. The Department had a close working relationship with the Native Vegetation Council, the South East Drainage Board and the Pastoral Board.

The Chief Executive was the State Government appointee to the Basin Officials Committee (BOC), established under the Australian Government's *Water Act 2007*. Together with the Murray-Darling Basin Authority, BOC oversees management of river operations and natural resource management programs in the Murray-Darling Basin. BOC provides advice to the Authority, and reports to the Murray-Darling Basin Ministerial Council.

The Chief Executive was also a member of the Primary Industries Standing Committee and the Natural Resources Management Standing Committee, which advise state and Australian Government ministers on the Primary Industries Ministerial Council and Natural Resources Management Ministerial Council respectively.

Department officers were also members of many national committees and working groups that aim to ensure a coordinated and consistent approach to natural resources management priorities, such as the management of the River Murray, Indigenous reconciliation and biosecurity concerns.

With science and policy a priority, DWLBC officers were committed to maintaining strong relationships with the research communities within universities, and a number of co-operative research centres. The Department also developed very strong relationships with the Australian Government's Bureau of Meteorology as part of delivering legislative responsibilities as the State's lead water agency.

Fostering strong partnerships with community and non-government organisations was another focus for the Department. These included partnerships with the Local Government Association of South Australia, Conservation Council of South Australia, the South Australian Farmers' Federation and industry representative groups.

The Department also supported a number of whole-of-government reform initiatives. This included the Chief Executive sponsoring a South Australian Executive Service Executive Action Team. Additionally, the Department led work related to the State Reform Agenda, and provided executive and technical support to the Water Security Council and NRM Council.

# Relationship to South Australia's Strategic Plan

## Targets with Lead Responsibility

The Department is lead agency for the following South Australian Strategic Plan targets:

### Objective 3 - Attaining Sustainability

#### Biodiversity

**T3.3 Soil protection:** By 2014, achieve a 20 percent increase in South Australia's agricultural cropping land that is adequately protected from erosion.

#### Water

**T3.9 Sustainable water supply:** South Australia's water resources are managed within sustainable limits by 2018.

**T3.10 River Murray – flows:** increase environmental flows by 500 GL in the River Murray by 2009 as a first step towards improving sustainability in the Murray-Darling Basin, with a longer-term target of 1500 GL by 2018.

**T3.11 River Murray – salinity:** South Australia maintains a positive balance on the Murray-Darling Basin Authority salinity register.

## Core Business Targets Supported

The Department provides support to the following targets relating to core business:

### Objective 1: Growing Prosperity

#### Exports

**T1.14 Total Exports:** treble the value of South Australia's export income to \$25 billion by 2014.

**T1.18 Minerals production:** increase the value of minerals production to \$3 billion by 2014.

**T1.19 Minerals processing:** increase the value of minerals processing to \$1 billion by 2014.

### Objective 3 - Attaining Sustainability

#### Biodiversity

**T3.1 Lose no species:** lose no known native species as a result of human impacts.

**T3.2 Land biodiversity:** by 2010 have five well-established biodiversity corridors aimed at maximising ecological outcomes particularly in the face of climate change.

## Other Contributions

The Department also contributes to the following objectives and targets:

### Objective 1: Growing Prosperity

#### Economic Environment

**T1.7 Performance in the public sector - customer and client satisfaction with Government services:** increase the satisfaction of South Australians with government services by 10 percent by 2010, maintaining or exceeding that level of satisfaction thereafter.

**T1.8 Performance in the public sector - Government decision-making:** become, by 2010, the best performing jurisdiction in Australia in timeliness and transparency of decisions which impact the business community (and maintain that rating).

**T1.9 Performance in the public sector - administrative efficiency:** increase the ratio of operational to administrative expenditure in State Government by 2010, and maintain or

better than that ratio thereafter.

## **Objective 2: Improving Well Being**

### **Public Safety**

**T2.11 Greater safety at work:** achieve the nationally agreed target of 40 percent reduction in injury by 2012.

### **Work-Life balance**

**T2.12 Work-life balance:** improve the quality of life of all South Australians through maintenance of a healthy work-life balance.

## **Objective 4 - Fostering Creativity and Innovation**

### **Investment in Science, Research and Innovation**

**T4.9 Public expenditure:** by 2010, public expenditure on research and development, as a proportion of Gross State Product, to match or exceed average investment compared to other Australian States.

**T4.10 Australian Government resources:** secure Australian Government research and development resources to 10 percent above South Australia's per capita share by 2010 and increase this share to 25 percent by 2014, for both public and private spheres.

## **Objective 5 - Building Communities**

### **Women in Leadership**

**T5.1 Boards and committees:** increase the number of women on all State Government boards and committees to 50 percent on average by 2008, and maintain thereafter by ensuring that 50 percent of women are appointed, on average, each quarter.

**T5.2 Chairs of boards and committees:** increase the number of women chairing State Government boards and committees to 50 percent by 2010.

### **Aboriginal Leadership**

**T5.7 Aboriginal leadership:** increase the number of Aboriginal South Australians participating in community leadership and in community leadership development programs.

## **Objective 6: Expanding Opportunity**

### **Diversity in the Public Sector**

**T6.22 People with disabilities:** double the number of people with disabilities employed by 2014.

**T6.23 Women:** have women comprising half of the public sector employees in the executive levels (including chief executives) by 2014.

**T6.24 Aboriginal employees:** increase the participation of Aboriginal people in the South Australian public sector, spread across all classifications and agencies, to 2 percent by 2010 and maintain or better those levels through to 2014.

# Operations and Deliverables for 2009-10

## Program 1 – Natural Resources Management

### Natural Resources Management (NRM)

#### ***Natural Resources Management Reform***

In May 2009, the Minister for Environment and Conservation announced a package of reforms for natural resources management. The reforms were designed to renew the focus on community-based natural resources management. They included a review of the *Natural Resources Management Act 2004* and provision of state funding for the State NRM Program. In 2009-10, \$16 million was provided for the State NRM Program. The funding incorporated \$2.8 million for community groups to carry out local Landcare, Coastcare and Watercare projects. Future funding for NRM was to be contingent on the system being made more efficient and effective, underpinned by ongoing evaluation and improvement.

The following activities were undertaken to improve efficiencies:

- A forum of key stakeholders including representatives from the Conservation Council, South Australian Farmers' Federation, Local Government Association and NRM boards was convened to identify and discuss specific actions that could deliver efficiencies. It was agreed that the fundamental aspects of the natural resources management initiative were working well and should be retained. In particular, the regional approach is effective and the funding arrangements via the NRM levy provide a security of funding that is viewed as an important foundation for the successful management of natural resources in South Australia.
- With statutory review of the State NRM Plan completed in 2009, revision of the State NRM Plan commenced to provide an opportunity to better link NRM investment with more formal collation and analysis of the state and condition of natural resource assets, strategic priority setting, reporting and robust accountability.
- A sustainability strategy for South Australia's natural resources was developed with the aim of providing a coherent framework that unifies existing initiatives and identifies state priorities and linkages across government.
- The Minister visited a number of regions and met with their NRM boards, local government representatives, community groups and landholders. Regions visited included the South East, Riverland and Upper River Murray, SA Arid Lands and the Coorong.

#### ***Community Grants for Natural Resources Management***

The Department continued to coordinate the NRM Community Grants scheme to provide financial support for community groups and their local Landcare, Coastcare and Watercare projects. The scheme acknowledges the significant contribution made by volunteer-based groups and addresses the need to support this vital community resource.

There were two rounds of grants in 2009-10. The first was called in September 2009, and of the 161 applications received, 83 community groups were successful and shared in funding of \$1.6 million (93 projects). The second round was called in April 2010. It attracted 143 applications, with 56 groups being successful and sharing \$1.24 million (63 projects).

For each round, the Department coordinated a two-stage assessment process to ensure probity and fairness, which included input both from regional NRM boards and a state-level assessment panel. The successful projects addressed key regional and state priorities, including pest plant and animal control, awareness raising activities, sustainable farming practices and water-use efficiency.

## **Natural Resource Management Investment**

### ***Caring for our Country Initiative***

The \$2 billion Caring for our Country initiative funds projects across the country to achieve national targets and projects to improve biodiversity and sustainable farm practices. This funding supports regional natural resource management groups, local, state and territory governments, Indigenous groups, industry bodies, land managers, farmers, Landcare groups and communities. The initiative requires the State to continue to contribute financial and in-kind support equivalent to that provided under previous programs.

Commonwealth Annual Business Plans guide Caring for our Country investment through both competitive funding and regional base-level funding. Regional NRM boards in South Australia were directly allocated base-level funding of \$19 million in 2008-09 and \$17.3 million per annum for 2009-10 to 2012-13, with \$35.5 million confirmed in 2009-10 for approved programs over the next four years.

In addition, \$5 million in open grants and \$2.7 million in Landcare funding was secured for South Australia in 2009-10. Projects that benefited included Landcare and Coastcare, and biodiversity, pest and weed control programs.

### ***State Natural Resources Management Program***

The State NRM Program complements the Commonwealth's Caring for our Country initiative; both are helping to achieve the objectives of the *Natural Resources Management Act 2004* through investment in the State's natural resources. Both are also consistent with the State NRM Plan and the Government's policy of developing integrated natural resources management and delivery through regional NRM boards.

The Department successfully coordinated expenditure of the \$16 million program in 2009-10. The governance model developed by the Department to support audit processes ensured that all financial and program outcomes were met in the timeframe for the end of the financial year.

The State NRM Program in 2009-10 comprised:

- \$4 million of strategic investment allocated to eight projects to tackle priority natural resources management issues. These projects included water resource investigations for Middle River, Kangaroo Island; feral camel management in the SA rangelands; an Eyre Peninsula climate change program; and the South East Water Management Strategy;
- \$5 million of competitive funding for 25 projects developed by NRM boards and State NRM agencies, including managing watercourses and stormwater, pest control and other on-ground environmental work, and projects aiming to improve farming systems;
- \$2.8 million allocated to 156 projects over two funding rounds to expand the successful NRM community grants scheme;
- \$2.7 million allocated to 16 State programs and projects, including program governance costs and NRM reform initiatives, review of the *Natural Resources Management Act 2004*, statutory review of the State NRM Plan, community engagement capacity building projects and governance training for all members of the NRM Council and regional NRM boards; and
- \$1.5 million for stormwater projects as provided for within the State's water security plan, *Water for Good*.

## **Natural Resources Management Planning**

### ***Regional NRM Plans***

Regional NRM boards each have a responsibility to prepare and maintain a comprehensive plan for their respective regions. During 2009-10, new plans were adopted for Kangaroo Island, the South Australian Arid Lands, and the South East.

The plan for Alinytjara Wilurara has been prepared and is expected to be adopted in early 2010-11. Amendments to the plans for Adelaide and Mount Lofty Ranges, Northern and Yorke, Eyre Peninsula and the South Australian Murray-Darling Basin were also signed off by the Minister during the reporting period. Once the Alinytjara Wilurara NRM plan is adopted, all NRM regions will have a comprehensive plan in place.

### ***Natural Resources Management Levies***

The Department managed the annual process that scrutinises and approves the regional (land-based) levies raised by regional NRM boards through their plans. In 2009-10, levies were established for the following regions:

- Adelaide and Mount Lofty Ranges;
- Eyre Peninsula;
- Kangaroo Island;
- Northern and Yorke;
- South Australian Arid Lands;
- South Australian Murray-Darling Basin; and
- South East.

Most of the regional levies are collected by local councils, however, the Department collected levies for boards outside council areas in the Eyre Peninsula and South Australian Arid Lands NRM regions.

Levies are not raised or collected in the Alinytjara Wilurara NRM Region.

The Department also managed the annual process to establish the NRM water levies paid by licensed water users in prescribed water resource areas in the following regions:

- Adelaide and Mt Lofty Ranges;
- Eyre Peninsula;
- Northern and Yorke;
- South Australian Arid Lands;
- South Australian Murray-Darling Basin; and
- South East.

NRM levies provide substantial funding to regional boards and are used to:

- Fund significant programs for on-ground works;
- Support infrastructure and the expertise to manage projects funded through State and Australian Government programs; and
- Assist a broad range of community-based projects.

### ***Water Allocation Planning***

Water allocation plans in South Australia are prepared pursuant to the *Natural Resources Management Act 2004*, following prescription of a water resource. The Department assists NRM boards to draft these plans. The plans contain policies for issuing water entitlements, allocations and the transfer or trade of water, as well as site use and works approvals.

There are 19 water allocation plans in South Australia. These plans must be reviewed within five years of adoption. To date, all plans that have been reviewed have gone on to be amended.

Currently 12 plans are being amended. A new plan was adopted in January 2010 for the Marne Saunders Prescribed Water Resources Area. Two other plans for the River Murray Prescribed Watercourse and the Tatiara Prescribed Wells Area were amended during the year and are operating as second generation plans. Five new plans are being developed.

The Department assisted the Northern and Yorke NRM Board to draft the policy section of the Baroota Water Allocation Plan in the unbundled framework.

The development of new and amended plans contributes to the progress of South Australia's Strategic Plan target T3.9 (Sustainable Water Supply: South Australia's water resources are managed within sustainable limits by 2018).

#### ***Water Management in the Western Mount Lofty Ranges***

The Western Mount Lofty Ranges (WMLR) provides critical water supplies for agricultural and horticultural production, and for metropolitan Adelaide. The State Government has prescribed the surface water, watercourses and wells in the WMLR and in 2009-10 the Department worked closely with the Adelaide and Mount Lofty Ranges NRM Board to implement new management arrangements for ongoing sustainability.

Development of the WMLR Water Allocation Plan depends on the assessment of the capacity of the resources and determining sustainable extraction limits. Sustainable extraction limits need to reflect not only the capacity of various water resources but also the needs of water-dependent ecosystems.

The draft WMLR Water Allocation Plan was developed in 2009-10. It is due to be released for public consultation in the first half of 2010-11.

Temporary water authorisations have been issued to almost all water users in the Western Mount Lofty Ranges. These authorisations have allowed existing users to continue operations during the Notice of Prohibition, which remains in place until the Water Allocation Plan is adopted. Existing users are authorised on the basis of irrigation activities in the three years prior to the Notice of Prohibition.

During 2009-10, 151 well construction permits were processed, 344 licence applications assessed and 45 authorisations transferred or varied.

#### ***Water Management in the Eastern Mount Lofty Ranges***

The Eastern Mount Lofty Ranges (EMLR) is a critical water catchment for the State. In order to protect these water resources, the government prescribed surface water, watercourses and wells in the EMLR. The decision followed extensive periods of consultation, as well as investigations into the economic and environmental implications.

A draft Water Allocation Plan (WAP) for the region was developed in 2009-10; and is due to be released for public consultation in 2010-11.

Temporary water authorisations have been issued to almost all water users in the area. These authorisations have allowed existing users to continue their operations during the Notice of Prohibition, which remains in place until the Water Allocation Plan is adopted. Existing users are

authorised on the basis of their irrigation activities in the three years prior to the Notice of Prohibition.

In 2009-10, construction permits for 93 wells were processed, 48 licence applications were assessed and 22 authorisations transferred or varied.

### ***Development Planning***

The Department provided advice on, and input into, State and local government development planning matters. It also ensured timely decisions and advice were provided on statutory referrals under the *Natural Resources Management Act 2004* and the *River Murray Act 2003*.

As part of administering the *Natural Resources Management Act 2004*, only four development applications were received and assessed in the reporting period, due to the prescription of both the Eastern and Western Mount Lofty Ranges.

Numerous policy and other documents were received, processed and finalised throughout the year, including:

- 87 development plan amendments;
- 36 mining applications;
- 14 *Fisheries Management Act 2007* exemptions; and
- 48 *Environmental Protection and Biodiversity Conservation Act 1999* referrals.

As part of administering the *River Murray Act 2003*, 421 development applications were received and assessed with advice provided on an additional 116 development related matters.

Other significant milestones included:

- Amending delegations under the Act;
- Meeting all statutory timeframes (T1.8);
- Enhancing compliance with the Act; and
- Achieving high customer satisfaction rates (T1.7).

In addition to contributing to SASP Targets T1.8, T3.1 and T3.2, the Development Planning team assisted other Departmental divisions with programs relating to riverbank collapse, River Murray compliance and enforcement and emergency moorings.

## **Natural Resources Management Act 2004**

The *Natural Resources Management Act 2004* (NRM Act) promotes the sustainable and integrated management of the State's natural resources and provides for the protection of those resources.

### ***Amendments***

During the reporting year, the NRM Act was amended on three occasions by:

- The *Natural Resources Management (Water Resources and Other Matters) Amendment Act 2007* – to revise water entitlements and address certain administrative matters,
- The *Murray-Darling Basin Act 2008* – to update references in terminology and to the Murray-Darling Basin plan, the Ministerial Council and the Australian Government's *Water Act 2007*, and
- The *Statutes Amendment (Public Sector Consequential Amendments) Act 2009* – to update references in terminology and to certain conflict of interest provisions, and to revise provisions relating to immunity from liability.



Similarly, supporting regulations under the NRM Act were amended six times during 2009-10. A new regulation was also created during the reporting period, titled the *Natural Resources Management (Marne Saunders Prescribed Water Resources Area—Reduction of Water Access Entitlements) Regulations 2009*. These regulations set out a scheme for the reduction of water access entitlements for existing users in the Marne Saunders Prescribed Water Resources Area.

### **Forests – Water Policy Development**

In July 2009, the Minister for Environment and Conservation and the Minister for Forests, together with the Chief Executives of DWLBC and PIRSA, hosted a briefing at Parliament House for key stakeholders from industry and government to discuss a State-wide policy framework for *Managing the water resource impacts of plantation forests*. The Department and the South East NRM Board provided further briefings and information sessions to representatives from the agricultural and forestry industries in Mount Gambier in late August and early September 2009.

The State-wide policy framework was developed by the Water and Forests Interdepartmental Committee with substantial executive support from the Department. The committee continued to meet until late 2009 to work on the framework, and to examine water allocation planning processes under the *Natural Resources Management Act 2004*. It proposed policies and technical information for a draft water allocation plan for the Lower Limestone Coast Prescribed Wells area.

In early 2010, the Department established a Lower Limestone Coast Water Allocation Plan Taskforce with the South East NRM Board and relevant State Government agencies to examine the extent of the impacts of plantation forestry on water resources and associated users. The Taskforce aims to reach agreed positions within government on the best way to implement forest water licensing as part of the draft plan. The Taskforce will also consult peak industry and conservation groups to ensure key stakeholder concerns are addressed.

Enabling legislation for management options set out in the framework has yet to progress through Parliament. However, the Department nevertheless commenced work on developing an implementation guide for water managers. The guide will contribute to Action 47 in the *Water for Good* plan which relates to implementation of the State-wide water and forests policy framework.

### **Water Licensing**

The ongoing administration of the *Natural Resources Management Act 2004* relating to water licensing includes the issuing and transfer of water licences, the temporary and permanent transfer of water allocations, and adherence to water licence conditions. It also involves issuing permits for the construction of wells and other water affecting activities, licensing well drillers in South Australia and endorsing security interests relating to water licences on the Minister's register.

The following activities took place in 2009-10:

<b>Licensing Activity(not including River Murray)</b>	<b>2009-2010</b>
Well Construction and Drainage Permits issued	3,805
Well Drillers Licences administered	114
New Water Licences issued	190
Water Licence Transfers	224
Variation to Water Licences	82
Water Allocation Transfers (total)	147
Permanent Water Allocation Transfers	80
Temporary Water Allocation Transfers	67
Security interests on water licences administered	189

The conversion of area-based water allocation to volumes for the Clare Valley Prescribed Water Resources Area was completed in June 2010. The requirement for all allocations to be in volumes and the methodology for conversion is detailed in the Clare Valley Water Allocation Plan. A total of 314 licences were converted and re-issued.

The re-issuing of existing user licences in the Far North Prescribed Wells Area also progressed significantly during the year. More than half of the total number of existing licences were re-issued, and the remaining applications were well advanced.

Engagement also commenced with the community and the Northern and Yorke NRM Board regarding water resources and resource capacity in the Baroota Prescribed Water Resources Area. A public meeting and meetings with the area's Water Allocation Planning Committee progressed the development of the water allocation plan and consideration of allocations for existing users during 2009-10.

The provision of water data to Commonwealth and other stakeholders involved in water accounting and management steadily increased throughout the year. Commonwealth agencies such as the Department of Environment, Water, Heritage and the Arts and the Bureau of Meteorology formally engaged with DWLBC to share water data from the State's jurisdiction.

### **State Natural Resources Management Plan 2006**

The State Natural Resources Management Plan sets out an integrated framework to support the ecologically sustainable development of the State's natural resources. The plan is required under the *Natural Resources Management Act 2004*, and contains strategic direction and policy for managing South Australia's natural resources, including:

#### ***Implementation of the State NRM Plan Project***

This project evaluated the operational performance of the State NRM Plan. The Plan's 108 strategies were analysed for their effectiveness, and the final report was presented to the NRM Council in October 2009.

During the evaluation process more than 80 respondents provided information on almost 400 individual actions. Three progress reports were completed to capture the level of activity against each strategy. These reports highlighted that most strategies were being implemented.

#### ***Statutory Review of the State NRM Plan***

The *Natural Resources Management Act 2004* requires that the State NRM Plan be reviewed at least every five years and that the NRM Council must monitor and evaluate the effectiveness of the plan.

The review was endorsed by the NRM Council in February 2010 and found evidence of improvement in the condition of natural resources; in community capacity and the social infrastructure required to manage natural resources; and in the productive output from industries reliant on natural resources.

#### ***Progress and Achievements in Natural Resources Management***

A high-level evaluation of the State NRM Plan's four goals aimed to assess progress towards achieving NRM outcomes and identify key learnings to date. These included:

- Improved awareness and management of the threat posed by climate change;
- Movement in status of some threatened fauna to lower risk categories;
- Reduced water quality deterioration;
- Continued productivity growth in natural resource-based industries;

- Increased capability in communities and government to contribute to natural resources management; and
- Effective management of new, and some existing, biological threats.

The evaluation showed that progress has been made towards achieving the State NRM Plan's goals, contributing to the ongoing improvement of natural resources management in South Australia.

### **Next steps**

In concurrence with the Minister for Environment and Conservation, the NRM Council agreed to update the State NRM Plan to set the direction for natural resources management over the next decade and beyond.

Development of the new State NRM Plan will be informed by recommendations from the final report, the high-level evaluation and statutory review. The plan will be considered by the Minister for Environment and Conservation in 2011.

### **Evaluating Effectiveness of the State Natural Resources Management Plan**

The Department evaluated the State NRM Plan 2006 to determine the extent to which its goals were being achieved. The evaluation was timed to provide early input into future reviews to develop the next plan.

Evaluation found the plan contributed significantly to integrating the management of water, land and biodiversity in South Australia, while recognising the contributions made by various sectors of the community. It also highlighted some areas of ecosystem health that were improving despite worldwide decline. High productivity from natural resource use has been maintained, despite one of the most prolonged droughts on record. NRM agencies have led the uptake of management approaches that are likely to strengthen sustainable resource use in the future.

### **Natural Resources Management Council**

The NRM Council met on the first Friday of every month during 2009-10, except for January and March 2010. It provided advice, discussed and responded to, or endorsed:

- Regional NRM plans;
- Water allocation plans;
- The 30 Year Plan for Greater Adelaide (joint submission with the Premier's Climate Change Council);
- The Climate Change Adaptation Framework (a joint project with the Premier's Climate Change Council);
- The Premier's NRM Awards, in conjunction with the South Australian Landcare Awards;
- The impact of plantation forests on water resources;
- The Minister for Environment and Conservation's Stakeholder Forum;
- A list of NRM principles to be used in developing industry plans;
- A review of the *State NRM Plan 2006*; and
- The South Australian Landcare Moving Forward Forum.

The NRM Council Business Plan for 2010 was ratified in April 2010. The plan set a broad direction for the calendar year, and identified the following key themes for 2010:

- 1. State NRM Plan:** The NRM Council is committed to revising the State NRM Plan in 2011;

2. **Climate Change:** The NRM Council will preserve and grow the existing partnership with the Premier's Climate Change Council to prepare '*Prospering in a changing climate - An Adaptation Framework for South Australia*';
3. **Social Dimensions:** The NRM Council will continue to strengthen engagement with the community and seek opportunities for additional engagement and capacity building state-wide;
4. **Sustainable Landscapes:** The NRM Council will continue to encourage and support management of natural resources at a landscape scale. This also includes identifying opportunities for improved management, and to influence users of natural assets to take an integrated approach to planning and management policies to ensure assets are sustained for future generations; and
5. **Influence Triple Bottom Line:** The NRM Council will provide a platform to integrate social and economic agendas with natural resources management across government.

### ***Relations with Aboriginal Communities***

Aboriginal engagement in natural resources management is a fundamental component of successfully delivering the *Natural Resources Management Act 2004*. Achieving this objective has proved challenging, with both the Department and regional NRM boards actively involved in genuine efforts to engage with Aboriginal communities, with varying levels of success. The Aboriginal State-wide Advisory Committee (ASAC), a subcommittee of the NRM Council, is continuing its efforts to facilitate greater Aboriginal involvement in natural resources management.

### ***Volunteers in Natural Resources Management***

The NRM Volunteer Committee established under the NRM Council comprises representatives from NRM boards, non-government organisations, Landcare Australia Limited, and local government, as well as volunteers and landholders. Committee members have been appointed for their specific knowledge, experience and skills in volunteer management, including their ability to consider volunteering from a strategic, State-wide perspective.

The committee managed the Premier's NRM Awards in conjunction with the South Australian Landcare Awards, culminating in a presentation evening where successful candidates were recognised as leaders in their category.

### ***NRM Council Assessment Sub-committee***

The NRM Council Assessment Sub-committee provides advice to the NRM Council on the consistency of regional NRM plans with the State NRM Plan. The sub-committee met twice during 2009-10 and commented on draft NRM plans prepared by the South Australian Arid Lands, South East and Alinytjara Wilurara NRM Boards. The sub-committee will also provide input into the development of the next State NRM Plan.

### ***Engaging NRM Community Capacity Steering Committee***

The NRM Council re-established and supported the NRM Community Capacity Committee including making a submission for funding to the State NRM Program to further develop a framework for capacity building in natural resources management in South Australia.

### ***Dennis Mutton – End of an Era***

During this reporting year Dennis Mutton, the inaugural Presiding Member, retired from his role with the NRM Council. Dennis was crucial in the establishment of the NRM Act and the formation of the NRM Council and board structures. The new Presiding Member is Sharon Starick.

## **Native Vegetation and Biodiversity Management**

### ***Native Vegetation Council***

The Native Vegetation Council is responsible for the effective administration of the *Native Vegetation Act 1991* and the *Native Vegetation Regulations 2003*. The Department provides both administrative and professional support to the council and its subcommittees.

A Significant Environmental Benefit (SEB) Grants Scheme was endorsed by the council in October 2008. The scheme provides funding for biodiversity projects that will assist in the large-scale conservation, restoration and management of native vegetation across the State NRM regions. Funds are sourced from monies paid into the Native Vegetation Fund by landowners and companies undertaking approved clearance activities as part of financial offset requirements under the Act and Regulations. Monies from penalties handed down by the court system are also paid into the fund, with a stipulation that they must be used to achieve an environmental gain within the region where the clearance occurred. Since the inception of the grants scheme, \$3.3 million has been approved for projects focussing on native vegetation biodiversity, conservation, restoration and management across South Australia's eight NRM regions. The third round of grants closed on 30 June 2010. Further information can be obtained by visiting [www.nrm.sa.gov.au](http://www.nrm.sa.gov.au)

### ***SEB Monitoring***

A process was trialled in 2009-10 for monitoring on-ground SEB offsets for their compliance with consent conditions. A total of 43 sites across four NRM regions were assessed for compliance with consent conditions and their biodiversity value, with the management of each site discussed with the landholder. This information will be used to inform the development of a monitoring and compliance program for 2010-11 and beyond.

### ***Compliance Monitoring***

Systematic monitoring of unauthorised native vegetation clearance via satellite imagery and other sources continued through the year. Using satellite imagery, three successful prosecutions were achieved through the Adelaide Magistrates Court, with penalties ranging from \$9,000 to \$244,000. The fine of \$244,000 imposed on a South Australian company and its director for the illegal clearance of 244 hectares of native vegetation is one of the largest issued for the unlawful clearance of native vegetation in South Australia.

### ***Managing Native Vegetation to Protect Public Safety***

Amendments to the Native Vegetation Regulations 2003 in September 2009 saw the introduction of Regulation 5(1)(b), which allows for the clearance of native vegetation to be exempt where that work is necessary to protect public safety. This new regulation has also contributed to and enabled the development of a framework to address clearance of native vegetation along roads and at rail crossings, where that vegetation may pose a public risk. The draft framework strives to balance the need to protect important remnant stands of native vegetation on roadsides with issues of public safety.

### ***Native Vegetation and Bushfire***

The devastating fires in Victoria in 2009 prompted the South Australian government to establish a Bushfire Taskforce to examine government processes that could be changed to improve public safety. The Department participated at an executive level on this taskforce.

Following a Ministerial review of native vegetation and bushfire safety, variations to the *Native Vegetation Regulations 2003* were gazetted in September 2009. Changes to the regulations transferred decision-making for the clearance of native vegetation for bushfire safety purposes to

the Chief Officer of the South Australian Country Fire Service (SA CFS) from the Native Vegetation Council (NVC).

The new Regulation 5(A) establishes a process for vegetation clearance associated with bushfire protection and management, with much of the decision-making on clearance issues transferred to the SA CFS. Regulation 5 (1)(k) has been amended to allow the clearance of all native vegetation within 20m of a prescribed building or 5m of a prescribed structure without the consent of the NVC.

Regulation 3A has been developed to redefine the definition of native vegetation to include some dead plants that provide habitat for some threatened animal species. Regulations 7 and 9 have been revoked as they related to compliance with a Management Plan and the definition of dead plants respectively.

Clearance of native vegetation approved or required by a Bushfire Management Plan established under the provision of the *Fire and Emergency Services Act 2005*, is considered exempt from approvals usually required under the *Native Vegetation Act 1991*. The variations ensure the local community, landowners and the government may plan appropriately to protect built assets and communities from bushfires.

To communicate the new arrangements the Department developed a '*Guide for Managing Native Vegetation to Reduce the Impact of Bushfire*', along with associated factsheets and an application form, now available from the CFS website.

With support from the Department for Environment and Heritage, Departmental officers provided training to CFS fire prevention officers on implementing the new regulations.

#### ***Native Vegetation Information System***

In 2008, the Department analysed its requirements for information systems to support administration of the Native Vegetation Act. This confirmed the need to update existing native vegetation databases used by the agency and replace unsupported systems with what has become known as the Native Vegetation Information System (NVIS). In partnership with the Native Vegetation Council, the Department's existing customer relationship management platform has been extended to support the administration of the Native Vegetation Act. Due to come online in July 2010, the new system will improve tracking and reporting of clearance applications, matters under regulation, heritage agreements and unauthorised clearance reports. This will also lead to improved customer service.

#### **Upper South East Program**

The Upper South East Dryland Salinity and Flood Management (USE) Program moved significantly towards finalisation during 2009-10. Final drainage works were largely completed during the reporting period, after being delayed during an environmental review of the impact of the Bald Hill and Wimpinmerit drains on the wetlands of West Avenue.

Construction work on the drains commenced in November 2009. By the end of the financial year, 74km of drains had been constructed, and numerous crossings and water crossovers installed to provide access to landowners, and divert valuable surface water to wetlands.

Construction for the next phase of the program, the REFLOWS (Restoring Environmental Flows to the Upper South East of South Australia) Project, also commenced in late 2009-10. About 13km of floodways north from the Drain M off-take at Callendale were completed, as well as 20km of works comprising the West Avenue Floodway, which is associated with the Bald Hill works.

The USE Program was able to release 14 GL of water into the southern lagoon of the Coorong between September 2009 and June 2010.

Despite significant progress during the year, the sunset date of the *Upper South East Dryland Salinity and Flood Management Act 2002* was extended by three years to 19 December 2012 by State Parliament in late 2009 to make sure there was sufficient time for the program to be fully completed. Other amendments were made at the same time, relating to changing land acquired by the Minister to statutory easements, and compensation for land acquisition as part of the REFLows project. The extension legislation is known as the *Upper South East Dryland Salinity and Flood Management (Extension of Project) Amendment Act 2009*.

The innovative adaptive management system used to manage flows as part of the USE Program was also developed further during the year, especially its decision support system. This computer-based system manages the plethora of information required to manage flows in a complex network of groundwater and surface water bodies which includes 85 regulators, 200 wetlands, 630km of drains and several watercourses.

A draft of the Upper South East Drainage Network Management Strategy was prepared and will be released for broader public comment shortly.

## **Soil Protection**

The Department is the lead agency responsible for achieving the SA Strategic Plan target (T3.3) relating to soil protection. The target is to achieve a 20 percent increase in the area of South Australian agricultural cropping land that is adequately protected from erosion by 2014, compared with 2003. An implementation plan has been developed for the target, and the Department is working with regional NRM boards, agricultural industry organisations and other State Government agencies to achieve this.

With the assistance of land management technical expertise provided by the Department, strategies relating to soil protection are now included in the regional plans prepared by the Eyre Peninsula, Northern and Yorke, SA Murray-Darling Basin and South East regional NRM boards.

In 2009-10, partnership projects and joint funding arrangements were also developed between the Department, farming organisations and regional NRM boards under the Sustainable Dryland Agriculture Initiative (funded by the State NRM Program). The projects focused on improving soil protection through the increased adoption of stubble retention and no-till practices; improved grazing management, particularly of crop and pasture residues; claying sandy soils to improve soil characteristics; and developing a decision support framework to help landholders manage changing climates. Workshops have been held across the agricultural areas to improve the integration of natural resources management in the regions and enhance cooperation between stakeholders. The workshops have involved NRM boards, the agricultural industry, farmer groups and agency staff.

In November 2009 and April 2010, seasonal reports on erosion protection in the State's agricultural cropping regions were completed. The reports marked the culmination of a program monitoring land condition. A summary of up-to-date monitoring data for key indicators relating to soil condition in agricultural areas was also compiled into a draft report.

An assessment of sites monitoring groundcover in South Australia was also completed, as well as a summary of typical field operations used to manage agricultural crops. These activities formed part of a national remote sensing program which monitored groundcover, coordinated by the Australian

Collaborative Land Use and Management Program and the Australian Government Bureau of Rural Sciences.

The Department worked with the University of Adelaide to develop a remote sensing approach for monitoring land condition. The aim is to provide an assessment over time of how well soil is being protected from erosion.

### **River Murray Forest**

The River Murray Forest Project completed its final public tender process in September 2009 for broad scale plantings of native trees and shrubs in the River Murray corridor. About 2,450 hectares of private land was commissioned for planting to provide biodiversity and carbon sequestration. Plantings will be staged over several years to allow for seasonal conditions and limited seed supply, with plantings from the final tender call to commence in 2010.

Three public land sites were also approved for planting during the year, bringing the total area of plantings on public land to 300 hectares.

During the year the project area was expanded to include the full extent of the River Murray in South Australia, aligning with the River Murray-Coorong Naturelinks Corridor. Expansion provides opportunities for planting in higher rainfall environments, with reduced establishment risk, while addressing important ecological needs throughout the corridor.

### **Lake Eyre Basin**

Lake Eyre Basin Ministerial Forum agreed to begin a program which provides sound scientific and local information to assist future management decisions about the Basin. The Rivers Assessment Program is a key action under the basin's five-year action plan, adopted by the Ministerial Forum last year.

Another priority action under the plan is to enhance engagement with Aboriginal communities as part of implementing the Lake Eyre Basin Intergovernmental Agreement. This agreement provides the overarching policy framework under which the Ministerial Forum operates. The forum agreed to change the focus of this action from 'engagement with' to 'participation of' Aboriginal people. This acknowledges the need to encourage active participation of traditional owners and Aboriginal communities generally, not in monitoring the condition of the Basin but in determining appropriate management responses to issues as they arise.

### **Feral Camel Management**

Feral camels are a major threat to South Australia's rangelands biodiversity, Aboriginal cultural sites and community infrastructure.

The Department, in partnership with the SA Arid Lands NRM Board, Alinytjara Wilurara NRM Board, Rural Solutions South Australia, DEH and PIRSA, commenced the implementation of a feral camel removal program in 2009-10. Funding was obtained through the State NRM Program for a range of sub-projects, including foundational planning and monitoring tools, protection of biological refuge sites (such as natural water holes) and the development and implementation of a camel removal plan.

Following an Expression of Interest process sent to landholders within the current SA camel distribution, 6,460 camels were controlled in 2009-10 through a combination of aerial culling and mustering for sale and slaughter. This work was undertaken as part of the four-year Australian Feral



Camel Management Project. It contributes to implementing a draft national feral camel action plan (developed for Australia's Natural Resources Management Ministerial Council).

### **NRM Biosecurity**

State NRM Program funding for the project "*Priority capacity, surveillance and control needs for SA's NRM biosecurity*" enabled nine sub-projects to be delivered in partnership with Rural Solutions SA, NRM Boards and the DEH. These included training and resource materials on surveillance for cane toads, Indian myna birds, stipoid grasses and other alert weeds. Workshops were held with NRM Boards on the use of 1080 poison for vertebrate pest control. A weeds botanist position at the State Herbarium enabled ongoing field surveillance for new weeds in the State. Control programs for weeds of national significance targeted outlier populations to reduce the extent of athel pine, boneseed, Western Cape bridal creeper and gorse in South Australia. Control was also undertaken for seeding pampas grass in the South East and Hudson pear in the SA Murray-Darling Basin.

### **Branched Broomrape Eradication Program**

In 2009-10, the Branched Broomrape Eradication Program successfully prevented branched broomrape plants from emerging in 95% of infested paddocks. From September to December 2009, the program undertook its largest ever market assurance survey, surveying every agricultural paddock within the Branched Broomrape quarantine area and more than 140,000 hectares outside, but adjacent to, the quarantine area. Forty-seven infested paddocks were recorded, six of which were new sites. The smallest ever recorded area of infestation was found. This result represents the most successful year in managing broomrape infestations to date.

### **Biological Control of Rabbits**

The Department has been collaborating on national and international scientific research to improve the management of rabbits in South Australia. Rabbits are one of the State's worst pests, significantly affecting native plant regeneration and pasture productivity, particularly in rangeland ecosystems. A project to quantify the genetic diversity of the rabbit haemorrhagic disease virus (RHDV) was established during 2009-10. The project aims to determine the complete genetic sequences of RHDV from viruses collected around Australia.

A parallel Caring for our Country-funded project is being conducted at the Elizabeth Macarthur Research Institute in NSW to test new European strains of RHDV for efficacy against resistant Australian rabbit populations. Information on the current genetic diversity of RHDV will be used to guide selection of new viruses which are genetically distinct for testing and potential release. Long-term epidemiological studies at Turretfield, in South Australia, and collaborative laboratory studies with the Department of Employment, Economic Development and Innovation in Queensland are being used to investigate how genetic resistance to RHDV is developing in rabbit populations.

### **Dog Fence Board**

The routine inspection and maintenance of the Dog Fence has continued, with the aid of six local Dog Fence Boards and private fence owners. The State's Dog Fence Board met four times in 2009-10, with one meeting occurring during their inspection of the fence from Roxby Downs to the NSW border. The ongoing maintenance program was noted by members, especially repairs being done to creek crossings and the maintenance track after the recent rains. The fence has remained dog proof.

## Climate Change

The Department is responsible for advising on the impacts of climate change on natural resources in South Australia, and for ensuring that its operations do not contribute to climate change. Within this context, the Department invested in numerous climate change projects:

- In conjunction with the Environment Institute of the University of Adelaide, a scientific summary paper was developed on *Climate Variability and the Impacts of Climate Change in South Australia*. This paper provides a snapshot of the current understanding of climate change impacts in the State and identifies areas of policy reform;
- A report was commissioned on the *Scientific Analysis of Step Change in South Australia*. This analysis tested the premise that South Australia had undergone a permanent reduction in rainfall, similar to reductions reported in Western Australia;
- Regional Climate Change Projections were developed for South Australia (to be completed in 2010-11). This will provide regionally-specific climate change information to assist natural resources management planning;
- A joint project with the Governor's Leadership Foundation examined innovative ways for delivering climate change reform. The project focused on how to generate active community involvement in both climate change adaptation and natural resources management more broadly;
- A draft Climate Change Policy Framework was developed for climate change policy reform within the agency;
- The Department coordinated input into *Prospering in a Changing Climate: An Adaptation Framework for South Australia*. This whole-of-government strategy will guide climate change adaptation for the coming decade;
- The Department coordinated agency bids for the National Climate Change Adaptation Research Facility funding rounds;
- Assistance was provided to establish the Transect for Environmental Monitoring and Decision Making (TREND) Project. Funded through the Premier's Science and Research Fund, this was a joint initiative of DWLBC, the Department of Environment and Heritage, the South Australian Research and Development Institute and the University of Adelaide to establish benchmark monitoring of climate change impacts across South Australia;
- The Department assessed the impact of climate change, in low rainfall cropping zones of SA, on land management and production. Modelling was used to bring together soil characteristics, crop water balances and climate scenarios;
- The Department partnered with CSIRO to deliver the SA component of the three-year National Soil Carbon Research Program. In 2009-10 the project involved sampling agricultural soils in the Mid North and Eyre Peninsula in order to identify and map the inherent potential for soils to store carbon, and to determine the influence of management practices on soil carbon;
- A detailed assessment of carbon sequestration rates was completed in commercial tree plantations and environmental revegetation sites in lower rainfall cropping regions. The work has provided data for modelling carbon sequestration rates across several regions. Detailed paddock-scale estimates were also used by researchers from the University of Adelaide to make economic comparisons with conventional annual crops;
- In conjunction with the Northern and Yorke NRM Board, the Department investigated the potential impact of climate change on land management strategies in dryland agricultural regions with mid to low rainfall; and
- An initial climate change vulnerability assessment was conducted for the Northern and Yorke NRM region. This involved assessing available scientific evidence of climate change risks to natural resources management systems in the region, combined with input from key stakeholders.

## Information Management

During 2009-10 the Department reviewed its existing information and technology capability and developed a Strategic Information Plan and a Strategic Technology Plan. It was determined that a new business-focussed approach should be taken to ensure information technology supported the business needs of the Department. The focus was to ensure consistency in delivery of information services and that the underpinning technology adequately supports the business.

In June 2010, the Department launched a new technology platform which supports integration of business applications ensuring critical information is more accessible and making it easier to share knowledge and collaborate with a range of stakeholders.

At the beginning of 2010, two significant activities commenced - the Desktop Transformation Program and a review of the approach taken to develop new business applications and systems. As a result of this review it was determined that an enterprise business focused architecture was required to ensure information systems were developed in a more systematic and structured manner that ensured consistent support of the objectives of the business.

An Enterprise Architecture program was developed. The architecture provides a conceptual blueprint to define the structure and operation of information management systems. It will ensure the development of information systems is aligned to the Corporate Plan.

All major information projects were aligned under the Department's Enterprise Platform Implementation Program, which created a new enterprise-wide technology environment upon which all projects have been, or are in the process of being delivered. This foundational platform will enable the Department to meet several objectives identified in the Corporate Plan including the ability to collaborate, share information and improve accountability. The new platform will continue to deliver improved information products and offer new services and tools to staff as features are added over time.

The Department's Information Unit has delivered or significantly contributed to a total of 61 projects or initiatives in the past year. The following examples illustrate some of the work undertaken throughout the year:

- The Department's desktop environment was refreshed for 850 users, improving organisational performance and positioning the Department to provide a higher level of modelling capability for the State's natural resource management programs.
- DWLBC provided significant support to the State Water Information Co-ordinator to complete the Strategic Water Information Monitoring Plan in May 2010.
- A web-based service was built to help manage Water Affecting Activity Permits. This system enables NRM boards to upload permit details into a master database which is then managed by the Department.
- A Pastoral Field Data Entry application was developed to provide a spatial tool to capture field data, replacing a significant amount of paper-based data recording processes. The tool is intended to help streamline current business processes by providing a facility to upload and download data. The application will also provide the basis for developing other tools, particularly in the area of capturing metering data.
- With the expanding use of data loggers and telemetry systems to monitoring resource conditions, a Surface Water Telemetry Viewer web application was launched by the Department. This system displays near real-time data and information from surface water monitoring sites within the State (including Central and Far North regions) and key surface water sites in New South Wales and Victoria.

- The delivery of a Riverbank Collapse advisory tool on the public website which provides the public with information about river bank collapse incidents along the River Murray. A map shows the locations of the collapse incidents, along with high quality background imagery and other relevant datasets such as CFS and SES regions. Users can also view photos of the sites and departmental staff can enter and update information about each site.
- The delivery of a Flood Hazard Mapping system that provides mapping of flood risk for South Australia which is used by emergency services and local government for planning purposes.
- The delivery of a Water Quality information system that delivers the water quality information to the public and interested users on behalf of the Environmental Protection Agency. The public can view and download water quality data from across the State as well as information about the areas where water quality is being monitored and the types of monitoring being undertaken.
- A new GIS-based data model for groundwater was made available via the public website that will integrate the various groundwater datasets and provide new and simpler ways to model, analyse and visualise groundwater data.
- Implementation of a new Service to enable delivery of data on a regular basis to the Bureau of Meteorology to populate the Australian Water Resource Information System (AWRIS), with data consistent with other States. This service will also facilitate the sharing of data between State Government agencies and water data providers.

## Excellence in Science

The Department takes a lead role in providing natural resource science support for the State, and has initiated a range of scientific investigations and activities to better understand and inform decision making.

Many projects delivered during 2009-10 supported the delivery of national reform agendas, including the National Water Initiative and the Commonwealth Water Act; and state agendas, including South Australia's Strategic Plan and *Water for Good*.

The delivery of the Groundwater Program along with other science, monitoring and information programs during 2009-10 provide a lead role for the achievement of South Australia's Strategic Plan target T3.9 Sustainable Water Supply: South Australia's water resources are managed within sustainable limits by 2018. Delivery and achievement of science, monitoring and information programs contribute to achieving South Australian Strategic Plan targets T3.1, T1.8, T3.3, T4.9 and T4.10.

## New Groundwater Program

For its contribution to achievement of the State *Water for Good* priorities the Department initiated programs under a Groundwater Program. Activities have been targeted towards improving knowledge and assessment of both prescribed and non-prescribed resources along with knowledge development to better understand climate change impacts, the development of new knowledge in the area of groundwater salinisation and the development of a modelling warehouse along with model protocols to establish the Department as a leader in water modelling.

The establishment of the Groundwater Program will enable the South Australian Government to deliver enhanced leadership in groundwater management through four integrated programs:

1. **State Groundwater and Water Monitoring System Program:** to review, assess and enhance the effectiveness of monitoring arrangements for the State, and develop appropriate capital works programs to ensure ongoing maintenance and enhancement where required.
2. **Groundwater Resource Assessment Program:** to provide regular reviews of the condition of the resource, particularly in response to changing climatic influences and consumptive

demands. Surveillance of those water resources considered as being of strategic significance or at high risk will be increased.

3. **New Knowledge for the Future Program:** to place water managers at the forefront of understanding so they can better facilitate sustainable industry development, improved water planning and allocation decision making.
4. **Communication and Information Management Program:** to improve the availability of water information for water managers, industry, educators and the broader community.

As the Groundwater Program is a significant and complex initiative, significant effort has been expended on planning, setting up project activities and establishing governance processes to ensure optimum value is delivered in future years.

Key achievements to date include:

- Information technology infrastructure was created to strengthen both the technical and data management capacity required to provide reporting and analysis capability to the program, along with an updated desktop operating environment to support the Department's leadership role for water resource modelling;
- An analysis of the groundwater monitoring networks was undertaken for the Eyre Peninsula and the Northern and Yorke NRM regions. This analysis will be used to inform future monitoring decisions, and will guide future capital investment for monitoring activities in these NRM regions;
- Significant progress has been made on non-prescribed groundwater assessment and reporting for the Eyre Peninsula water resources. Additional assessments are planned for the Northern and Yorke, Alinytjara Wilurara, SA Arid Lands, Kangaroo Island and SA Murray-Darling Basin NRM regions. Online delivery of score cards including comprehensive web based reporting to water users and the public will be made available during the 2010-11 year;
- Water resource assessments for both prescribed and non prescribed areas of the State achieved varying stages of completion to improve the understanding of the States water resources. This included a prototype report card for the Mallee Prescribed Wells Area, and significant progress on report cards for the Musgrave, Southern Basins and Clare Prescribed Wells Areas. A schedule for development of assessment score cards to comprehensively report on the State and Condition of prescribed groundwater resources for the 27 PWAs by June 2011 has been agreed;
- A groundwater modelling warehouse project established protocols to facilitate the development of more effective models, enhancing the Department's ongoing leadership in groundwater modelling;
- The Department has continued its commitment to the National Water Commission supported Great Artesian Basin Project. This project includes significant on ground field investigations in partnership with Flinders University and other research organisations to address key knowledge gaps for recharge and discharge rates and Great Artesian Basin springs hydro-ecological processes. Key projects to better understand the implications of climate change and climate variability for the condition of the State's water resources reached various stages of completion. This work will inform other projects as the program continues. A project to review roles and processes for engaging and supporting the development of water allocation plans has commenced. The project aims to facilitate more effective science support and input for Water Allocation Planning;
- Key projects were established and activities commenced to improve the modelling of salinisation of groundwater to support water planning, to facilitate outback water solutions, and to develop a new comprehensive numerical regional groundwater model for the South East;

- For the South East region, support was provided to develop groundwater model scenarios for the Coles and Short management areas, and a regional water balance was documented as part of a science review for the area;
- The Facilitating Long-term Outback Water Solutions (FLOWS) project has delivered a draft review of the basic capacity of the groundwater resources in the Far North. This includes an inventory of groundwater resources, review of projected demand and recommendations to address knowledge gaps. Partnerships have also been established with the newly established Goyder Institute for Water Research; and
- Early outcomes of the modelling groundwater salinisation project include a needs analysis for groundwater salinisation modelling guidelines, a development and road test of a draft methodology report for applicability to the water allocation planning process. Preparation of groundwater salinisation models for the Central Adelaide Plains, Currency Creek and Angas Bremer has also commenced.

### **Collaborative Science Partnerships**

Establishment of the Goyder Institute for Water Research was announced in May 2010 by the Premier and the Commonwealth Science Minister. The Goyder Institute is a five-year, \$50 million collaboration between the South Australian Government, CSIRO, the University of Adelaide, Flinders University and the University of South Australia. It will provide expert scientific advice to help the South Australian Government address the State's key water policy issues.

The Department continues to collaborate with Flinders University to ensure the success of the National Centre for Groundwater Research and Training. The Department continued to work closely with the centre as it confirmed its research projects, and provided logistical and planning support to establish a Super Science Site in the McLaren Vale area for intensive field research into groundwater hydrology.

The Natural Resources Management Research Alliance ceased on 30 June 2010 by mutual agreement of the member partners. The Alliance is to be replaced by a Natural Resources Management Research and Innovation Network to facilitate and coordinate collaborative research and science projects initiatives between the partners. The projects undertaken by the Research Alliance will be continued by the participating partners.

### **Technical and Scientific Programs to Secure Sustainable Water for Communities**

The Department was approached by SA Water in early 2009 to assist with establishing additional water supply capacity for the townships of Quorn and Wilmington, and the community around Nepabunna. The Nepabunna project was a finalist in the 2009-10 Premier's Public Sector Awards.

Drilling for these projects commenced during the second half of 2009, and pump testing after drilling was completed confirmed additional water supplies had been successfully established for these communities.

A major review of the groundwater resources of the South East was also completed under an National Water Initiative-supported project to better understand the nature of the groundwater aquifers, update resource knowledge to a greater level of currency, improve assessment of regional water availability and to develop adaptive management options for the water resources of this region. The work completed under this project will enable considerable achievement of longer term sustainable water supplies for the South East Region and contributed significantly to South Australia's Strategic Plan achievement (T3.9) for sustainable water supply.

### ***Fractured Rock Aquifer Scientific Investigations***

A project funded under the National Water Initiative improved the knowledge of groundwater flow mechanisms in fractured rock aquifers in the Mount Lofty Ranges, Northern Adelaide Plains and Kangaroo Island. The primary objective of the project was to improve decision-making for the allocation of groundwater resources in fractured rock aquifers, by improving the understanding of the groundwater flow processes occurring in these systems.

### ***Middle River Water Resources Investigation Project***

This project has helped to inform water management by gathering local information on surface water, groundwater and the water needs of the environment for the Middle River catchment on Kangaroo Island, as a means of developing estimates of resource capacity. The catchment includes the Island's only public water supply reservoir. It also supports a range of water-dependent enterprises including livestock, forestry and domestic use, as well as a range of water-dependent ecosystems.

The project developed a knowledge framework for water resource behaviour and environmental water demands for the catchment, based on data collected during the project. The framework can be further developed and improved over time with data collected from the monitoring networks installed as part of the project, as well as other sources. The knowledge framework is iterative and will continually develop to inform water management policy for Middle River catchment and other similar catchments on Kangaroo Island in the future.

### ***Testing Sustainable Extraction Limits for the Mount Lofty Ranges***

An innovative, best-practice framework has been completed to help policy makers test various options for managing surface water resources in the Mount Lofty Ranges, against corresponding risks to the aquatic environment.

As a result of collaboration between the Department and the Adelaide and Mount Lofty Ranges NRM Board, the tool will help identify potential increases in risk to the environment given changes in water allocations and various use scenarios. This will enable policy makers to make transparent and informed decisions relating to the tradeoffs that may be required to manage water resources and meet the social, economic and environmental needs of the region.

The framework is a major step forward in water allocation planning, as it uses real-world environmental data to help NRM boards and the community test the likely implications of existing and proposed water allocation policies.

### ***Water Management Model for the Fleurieu Peninsula Swamps***

A three-year project to assess the impacts of land use on water requirements of nationally-listed wetland ecosystems known as the Fleurieu Peninsula Swamps concluded at the end of 2009-10. Funded under the National Water Initiative, the project focussed in particular on plantation forestry and its impact on the water requirements of these nationally-listed wetland ecosystems, which are listed as a critically endangered ecological community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

The project focussed on the most vulnerable ecotype, known as perched swamps, which are highly susceptible to surface water development. More than 500 perched wetlands have been mapped on the Fleurieu Peninsula, however prior to this study their environmental water requirements were not well understood.

Results of the study are consistent with prior forestry-related investigations in the region, and have increased understanding of the resource. Models generated as part of the work will be of direct use in future water allocation planning processes in the Mount Lofty Ranges. The project also provides an improved knowledge base upon which to determine the level of risk presented by various development scenarios to perched wetland ecosystems.

#### ***Assessment of Rock Holes of the Gawler Ranges***

A joint project has identified culturally and ecologically significant rock holes in the Gawler Ranges. The project was part of a collaborative effort by the Department, South Australian Arid Lands NRM Board, the South Australian Native Title Unit and the local Aboriginal community to manage water resources, aquatic ecosystems and issues relating to cultural land management in the arid and semi arid regions of South Australia.

The Gawler Ranges is registered under an Indigenous Land Use Agreement, which acknowledges the different rights and interests that parties have in relation to land and water. The agreement allows for Native Title negotiations that respectfully meet the needs of all relevant parties. The project has adopted protocols and procedures for working with culturally-sensitive information, which has led to positive engagement with the Aboriginal community.

The next stage of this project is to incorporate priorities identified by the Aboriginal and Pastoral communities with the ecological assessment so that a final collaborative NRM decision can be made on the best way to manage and protect the rock-hole systems.

#### **Monitoring and reporting**

The Department continues to deliver projects which improve the technical understanding of water resource development and its impacts. A range of monitoring activities was undertaken in 2009-10 to better inform ongoing and future management decisions.

#### ***Evaluation Framework for Natural Resources Management***

A state monitoring, evaluation and reporting framework for natural resources management was further developed in considerable detail. This framework has been applied to the governance and program improvement processes for the State NRM Program. Application of this work will result in clearer and improved achievement of the State NRM Plan as recipients of grants will be held accountable for project performance and specific NRM benefits as a result of this process.

#### ***Assessing the Impact of Water Use Developments***

The Department delivered two projects under National Water Initiative funding, which improved the technical understanding of water resource development and the impacts of use. One project developed a risk assessment methodology to analyse the potential impact of using imported water for irrigation in a catchment by investigating risks due to water logging, rising water tables and salinisation. The second project developed a risk assessment strategy for the State's non-prescribed (unregulated) water resources and analysed the varying levels of risks posed to these resources due to water-use development pressures.

#### ***Assessing Risks for Water-Dependent Ecosystems***

Phase one of a risk assessment project for water-dependant ecosystems delivered a preliminary assessment of South Australian ecosystems vulnerable to competing demands, such as groundwater and surface water development.



Preliminary spatial data sets were produced including:

- A classification of the likelihood of groundwater dependency of all mapped wetlands and watercourses;
- State-wide mapping of existing levels of groundwater and surface water extraction;
- An assessment of risk to water-dependent ecosystems from water resource extraction; and
- The development of preliminary risk zones for groundwater-dependent ecosystems that can be used to identify potential opportunities for future water resource developments, where impacts to ecosystems could be minimised.

The outcomes of this project will support the delivery of priorities for sustainably managing water resources and ensuring the provision of water for communities, our economy and the environment by:

- Identifying key risks and opportunities in water development;
- Providing further objectives for state and condition monitoring and reporting;
- Further defining and accounting for environmental water needs; and
- Creating a larger body of knowledge to inform water resource development assessments of potential risks to the environment.

### ***Understanding the Great Artesian and Lake Eyre Basins***

Development of more effective management options to protect the world-recognised mound springs at the western margins of the Great Artesian Basin continued during 2009-10, through a joint project involving the SA Arid Lands NRM Board, DWLBC, the Northern Territory Government, Flinders University and the CSIRO.

With heavy rainfalls occurring in Queensland, a team was deployed to Cooper Creek at Innamincka to undertake opportunistic monitoring of the surface-water flow under flood conditions to gain a better understanding of flow volumes to South Australia's portion of the Lake Eyre Basin. This work will inform baseline data which in turn assists management of the Basin.

### ***Upgrade, Investment and Modernisation of Monitoring Networks and Equipment***

An increased level of groundwater and surface water monitoring occurred throughout the year as a result of additional investment in monitoring assets, via the Bureau of Meteorology's Modernisation and Extension of Hydrologic Monitoring Systems Program, the State Groundwater Program and the Great Artesian Basin National Network.

In total, annual monitoring activity for salinity and/or water levels was undertaken at 4,075 groundwater monitoring wells throughout the State. In addition, surface water and meteorological monitoring data was collected from 320 sites across the State. This information is used to inform water allocation planning, improving the scientific understanding of the resource and ultimately natural resource management.

The Department actively pursued funding opportunities during round three of the Bureau of Meteorology's Modernisation Fund to upgrade both the groundwater and surface water monitoring capability for the State. To date, funding deeds with a combined value of \$4.8 million have been secured, including \$3 million during 2009-10.

Under the program's funding arrangements, 19 groundwater observation wells in the South East have been refurbished and groundwater and surface-water loggers installed at 157 sites across the State. This includes the construction of a new weir on Kangaroo Island to collect data on the effects of land use development has on catchment flows, in further support of scientific investigations for

the Middle River catchment. Some 202 telemetry sites have now been installed providing, water resource data in near real time to the Department's information applications.

With funding provided by the Commonwealth Great Artesian Basin Sustainability Initiative Phase 3 'Whole of Basin Monitoring Network', work commenced to upgrade 41 monitoring sites for the South Australian portion of the Basin. This included installing logging and instrumentation to measure pressure, flow and temperature. The work will inform resource condition reporting arrangements and will further facilitate the development of a cross-border management approach for this water resource.

Using funding provided by the Groundwater Program, additional capital works were completed over the year which resulted in repairs, replacement or upgrades to existing monitoring infrastructure, in addition to the upgrades funded by the Bureau of Meteorology. Works were completed on 16 surface and groundwater monitoring installations and were aimed at improving the reliability and accuracy of data collected.

Additional monitoring responsibilities will be identified as a result of the knowledge and assessment approaches being developed by the Groundwater Program. Planning for an ambitious capital works program to modernise the State's monitoring system and focus monitoring activity on the areas of highest need occurred during the 2009-10 financial year. The roll-out of this program is expected to occur during the 2010-11 financial year.

A new survey boat, the 'MVS Rosco', was delivered to the Resource Monitoring Unit at Berri in October 2009. The boat has been specifically designed and constructed to complete scientific surveys on lakes, rivers and estuaries around the State. The boat will be used primarily for salinity surveys in the River Murray, however will also provides improved functionality for additional survey work relating to compliance, bank erosion, sampling sediment and monitoring algal blooms.

#### ***Application of Technology Research and Investment to Monitoring Services***

The Department continues to provide seismology station maintenance at 27 sites across the State, and undertakes down-hole geophysical investigations and logging activities for a number of mining developments and the management of state assets. Data collected from these activities increases the distribution of spatial knowledge for resource condition across the State.

The Department provided support for seismological aftershock monitoring following earthquakes at Mount Barker on 16 April 2010 and Cleve on 6 June 2010.

#### **Legislative and Regulatory Frameworks for Sustainable Water Use**

The Mount Lofty Ranges Prescription Program was established to provide technical support for water allocation planning in the Western Mount Lofty Ranges. Three major components of the program were completed in the 2009-10 financial year:

- Provision of technical advice and determination of the capacity of the resource, as well as sustainable diversion limits for the draft Water Allocation Plan;
- Development of a groundwater flow model for a fractured rock environment and an analytical and numerical model for pristine and cleared catchments, and production of a report documenting the model outcomes; and
- Assessment of groundwater and surface-water connectivity in the Mount Lofty Ranges, involving the investigation of the spatial extent of interconnectivity in pristine and cleared catchments; and the production of a report documenting the outcomes of the investigation, including recommendations for appropriate management strategies.

Technical advice was also provided for the Eastern Mount Lofty Ranges water allocation planning process to help determine the capacity of the resource and set sustainable diversion limits for the draft Water Allocation Plan.

### **Monitor and Report on the State and Condition of our Land and Native Vegetation**

In late 2009 a book titled, *'The Soils of Southern South Australia'*, was published by the Department. The book was co-authored by past and present Departmental soil scientists James Hall, David Maschmedt and Bruce Billing.

This comprehensive 446-page, full-color book describes the soil resources of temperate-zone South Australia - their geology, nature, diversity, distribution, limitations and potential. It is designed to assist understanding, management, and natural resource management planning and policy development by industry, farmers, horticulturalists, planners, natural resource management program managers, ecologists, researchers, educators and students. The book is based on more than two decades of field-based scientific work across the State.

Seasonal erosion protection reports for agricultural cropping regions were completed in November 2009 and April 2010. This work was the culmination of survey program monitoring land condition in agricultural cropping regions. A summary of up-to-date monitoring data for the key indicators collected was compiled into a draft report on the condition of soil in the agricultural areas of South Australia.

An assessment of groundcover monitoring sites in South Australia and a summary of typical field operations used for managing agricultural crops were completed as part of a national remote-sensing project coordinated by the Australian Collaborative Land Use and Management Program and the Australian Government Bureau of Rural Sciences.

The Department worked with the University of Adelaide to develop a remote-sensing approach for monitoring land condition, to provide an assessment of soil protection from erosion over time.

A consistent and structured approach to improving natural resources management in South Australia has been promoted through further development of the State Monitoring Evaluation Reporting Framework for Natural Resources Management. Tools such as the Common Indicator Pool have been developed further to provide opportunities for collaboration on monitoring and reporting for natural resource conditions.

The tools have been applied through the Monitoring Evaluation Reporting and Improvement Plan for the State NRM Program, which funds projects set up by state agencies, regional NRM boards and non-government organisations.

### **Future Farm Industries Cooperative Research Centre**

The Department continued its partnership with the Future Farm Industries Cooperative Research Centre (CRC) during 2009-10. The CRC is developing more sustainable farming systems based on perennial plants that contribute to:

- The State Strategic Plan Target (T3.3) of increasing the area of land protected from soil erosion;
- Salinity management, and drought and climate change adaptation strategies in broadacre farming areas; and
- Conserving biodiversity and water resources.

The Department continued to collaborate with NRM boards and industry groups to maintain three trial sites which explored productive fodder shrub options for more marginal cropping areas. Plant biomass and sheep-grazing preferences were monitored at the sites during spring and autumn. This data is being used to inform the potential for these farming systems to provide alternative land uses in lower rainfall areas.

The Department also participated in the development of woody crop options for the broadacre farming areas. Four trial sites of potentially innovative biomass production species were maintained and monitored. Existing plantations also continue to be assessed for their ability to sequester carbon and produce biomass for industrial feed stocks.

In addition, the Department led the development of robust pathways to adoption for the new sustainable farming systems that are a priority for South Australia.

### **Asset Management**

The Department managed and operated an asset portfolio (on behalf of the South Australian Government) that provided South Australia with the infrastructure needed to manage its natural resources. Assets managed by DWLBC were separated into the following groups:

- The Patawalonga Lake System;
- River vessel waste disposal stations;
- The Noora Drainage Disposal Scheme;
- Saline water disposal basins;
- Lower Murray embankments;
- The Surface Water Monitoring Network;
- The Groundwater Monitoring Network;
- Water monitoring plant and equipment;
- Information and communication technology; and
- Licensed water use meters.

Each of the above asset groups is supported by the development of an Asset Group Management Plan, which also underpins the Department's Asset Management Strategic Plan. Also supporting these plans is a suite of asset management policies and procedures.

### ***Asset Management Information System***

During 2009-10, the Department continued implementation of its Asset Management Information System (AMIS). The purpose of AMIS is to replace legacy systems, and to improve control and provide timely delivery of asset information to people requiring the data, which includes the Department's asset register.

Two of the largest asset groups were chosen for the initial implementation of AMIS. These were the Groundwater Monitoring Network and the Surface Water Monitoring Network. The system will implement these two asset groups initially, and the remainder will be progressively loaded into the system during the next financial year.

### ***The Patawalonga Lake System***

The Patawalonga Lake System is a strip of water lying parallel to the coast north of the historic, seaside suburb of Glenelg. It is a valuable asset for the local community, integrating aspects of flood mitigation, aesthetics and recreational facilities.

Investigations during the year highlighted a need for major refurbishment and replacement works.

A business case addressing these issues was prepared during the year for future consideration by Government. Investigations were also undertaken to relocate the Glenelg Gates to the new King Street bridge to create a tidal marina. The Department worked collaboratively with City of Holdfast Bay on this initiative, which is unlikely to proceed due to the cost and extent of associated works necessary to address such issues as storm surge and sea level rise due to climate change.

O'Donnell Griffin Pty Ltd (ODG) is in their final year of the operations and maintenance contract. Work began to consider future operations and maintenance arrangements for the system.

***South East Water Conservation and Drainage Network***

The Department, in association with the South East Drainage Board, increased investment in the maintenance of its drainage infrastructure including bridge maintenance and painting. The Department also assisted the Board in the scanning of its extensive paper based records, some of which are 100 years old.

## Program 2 - Natural Resources Management (River Murray)

### Murray-Darling Basin Reform

The Department's work in this area directly contributes to achieving South Australia's Strategic Plan targets for managing South Australia's water resources within sustainable limits (T3.9), increasing environmental flows in the River Murray (T3.10), and maintaining a positive salinity register balance (T3.11). It also contributes to the *Water For Good* Plan's Action 53: 'Work with the Murray-Darling Basin Authority and other Basin jurisdictions to ensure a healthy, working River Murray that will continue to provide critical human water needs for Greater Adelaide and regional South Australia, irrigation requirements and water for the environment.'

#### ***Murray-Darling Basin Plan***

A key element of Murray-Darling Basin governance and planning reform was the creation of the independent Murray-Darling Basin Authority (MDBA). The reform also established new inter-jurisdictional forums including a Ministerial Council, a Basin Officials Committee of senior state officials, and a Basin Community Committee representing water users and other stakeholders.

The MDBA is responsible for developing a strategic plan for the integrated and sustainable management of water resources in the Murray-Darling Basin. Due in 2011, the plan will set new sustainable diversion limits on water extractions from surface water and groundwater sources.

In 2009-10, the Department led and coordinated State Government agency input to the development of the proposed plan. The Department coordinated the formal State Government submission in response to the MDBA's issues paper: *Development of Sustainable Diversion Limits for the Murray-Darling Basin*. It also provided advice, data and information about key environmental assets, environmental water requirements, catchment risks, socio-economic issues, water quality and salinity issues, critical human water needs and state water resource plans. Consultation and discussions on the plan will continue into 2010-11.

The Department also coordinated a cross-agency review and responses on the Australian Competition and Consumer Commission's advice to the MDBA on water trading rules. DWLBC supported the Minister for the River Murray representing South Australia on the Murray-Darling Basin Ministerial Council and the Department's Chief Executive on the Basin Officials Committee.

In 2010-11 the MDBA will release the proposed Basin Plan for consultation. The Department will lead an extensive review of the plan and the development of a whole-of-government response, including implementing processes to understand community and stakeholder issues and engage scientific expertise.

### Murray-Darling Basin Water Sharing Arrangements

In 2009-10 special water-sharing arrangements continued as a result of the prolonged drought. The Department supported the Premier and the Minister for the River Murray in negotiating and implementing water-sharing arrangements.

The Department ensured South Australia's interests and issues were included in a review of the Murray-Darling Basin Agreement by the Basin's jurisdictions. The review is examining options for

improving the management of water resources in the Basin, in particular operation of the River Murray system to better meet the challenges of a drier future. The review will continue into 2010-11 but will not impact on the timing and development of the Basin Plan by the authority.

During the year, the Department was closely involved in the development of schedules to the Murray-Darling Basin Agreement. These schedules give effect to South Australia's right to carryover and store water for critical human water needs and private carryover, and to implement a tiered system for water-sharing during dry periods. Negotiations will continue into 2010-11 when the schedules are due for adoption by the basin's ministerial council. The schedules will reduce the need for special water-sharing arrangements to be negotiated on an annual basis in the future.

River Murray system operations are being reviewed in a major project being run by the MDBA to improve river operations through the evolution of better operating strategies, rules, assessments and planning. This review is of strategic and operational importance to South Australia due to its implications for water-sharing, delivery and accounting. The Department represented South Australia in negotiations on various river operations issues and was an active participant in the review through representation on the modelling taskforce, working group and steering committee for the project. The review will continue in 2010-11.

## **Lower Lakes**

### ***Goolwa Channel Water Level Management Project***

The Goolwa Channel Water Level Management Project was developed as an emergency response to the critical and potential catastrophic acidification of the Goolwa Channel. Throughout the drought, water levels in the Lower Lakes fell considerably exposing significant areas of acid sulphate soils.

Modelling, water quality monitoring and scientific research identified there was a significant risk of exposing significant areas of these acidic soils in the Goolwa region. This presented a risk to water quality and water-dependent ecosystems, and could have potentially resulted in severe local economic impacts. The modelling identified that the soils needed to be inundated within a matter of months.

The overall aim of the project was to make it possible to inundate acidic sediments by creating a new pool of water in the Goolwa Channel. Three temporary environmental regulators were proposed for construction across the Finniss River, Currency Creek and Goolwa Channel (near Clayton) to create the Goolwa Pool. Once they were completed, water could be pumped from Lake Alexandrina into the pool, lifting the water level above the acid sulphate sediments.

The project was developed within an adaptive management framework involving civil construction works, monitoring, chemical water treatment (via limestone dosing of affected sediments), water pumping and significant community consultation.

Funding from the Murray-Darling Basin Authority and the Commonwealth Government was secured to implement the project. In total, \$19.2 million was committed, with the Department leading the response for South Australia.

The project constructed two of the three regulators (at Clayton and Currency Creek), however a decision to build the Finniss River structure was delayed as conditions improved.

The project enabled about 27 GL of water to be pumped from Lake Alexandrina into the new pool under a pumping regime that operated 24 hours a day, seven days per week from 17 August 2009 to 8 November 2009.

The project was complex due to community perceptions of the work and its impact, and the invasive nature of the emergency response. A cross-agency response and coordinated approach was taken to implement this significant intervention in the Lower Lakes.

Innovative methods were used in the construction of the regulators to ensure the channel was blocked effectively, and water would cover the sediments. The project represents a significant success in averting large-scale acidification in the Lower Lakes.

#### ***Lake Albert Spoil Treatment and Channel Preparation Project***

A number of critical interventions have been initiated throughout the protracted drought and unprecedented low water levels in the Lower Lakes. Following the construction of the Narrung embankment which now separates Lake Albert from Lake Alexandrina, water was pumped into Lake Albert in 2008-09 to inundate acid sulphate sediments.

Pumps were installed on the embankment and drew water through the Narrung Narrows. During this project, unforeseen wind effects prevented the pumps operating and emergency dredging of the Narrung Narrows was undertaken. Due to the urgency of this dredging, material was stockpiled to allow the pumps to operate.

In 2009-10, the Lake Albert Spoil Treatment and Channel Preparation Project was developed and implemented to deal with this stockpiled material. The project also enabled 1 GL of water to pass through pumps at the Narrung Narrows under most wind conditions.

In total, around 65,000 cubic metres of material had to be relocated, treated and disposed. The Department assessed land-based disposal options as part of its robust approach to identifying feasible options, however, given the volume of material and costs involved it was decided to dispose of the material underwater.

An underwater site was chosen in deep water in Lake Alexandrina. This required a cutter-suction dredge to 'suck' the material up, a booster-pump to push the transported material to the disposal site and the installation of a large silt containment curtain. There were several significant risks associated with the implementation of this project including the potentially adverse environmental impacts of uncontrolled sediment, unwanted impacts on the Narrung ferry, the potential for the dredge to become stranded and the effects of parallel pumping on the effective operation of the dredge.

These risks were considered and managed effectively, and all project aims were completed within the available time and budget. All appropriate approvals were obtained and the project met all Environment Protection Authority conditions.

The channel has been left with the capacity to deliver 1 GL of water to the Narrung embankment under most wind conditions.

#### ***Lake Albert Water Level Management Project (Part 2)***

This project follows on from the initial Lake Albert Water Level Management Project undertaken in 2008-09, and compliments the Lake Albert Spoil Treatment and Channel Preparation Project.

The Department was approached by the Department for Environment and Heritage (DEH) in October 2009 to pump water from Lake Alexandrina to Lake Albert. The original requirement was to pump 56 GL of water, however as the project developed a further 34 GL was made available. The total of 90



GL had to be pumped in full by June 2010 to ensure that River Murray operational delivery considerations and agreements with the other jurisdictions were met.

The Department worked together with DEH and SA Water to successfully deliver 90 GL to Lake Albert within the required timeframe, and significantly under budget.

### ***Murray Mouth Sand Pumping Project***

The Murray Mouth Sand Pumping Project has been operating since 2002. Formerly, known as the Murray Mouth Dredging Project, it responds to the threat of the Murray Mouth closing.

Historically, annual flows to the mouth typically ranged between 2,000 GL and 12,000 GL per year, but they have been substantially lower since 2001. The present drought has resulted in flows of less than 200 GL per month for more than seven years.

In the absence of barrage flow, a large volume of sand accumulated in the river mouth during two storms in May 2002, constricting the channels and affecting tidal flows to and from the Coorong. The risk of mouth closure became progressively more acute during 2002 and the risks (should dredging cease) have not eased. In fact, due to the impacts of drought and low River Murray flows, the risks of closure have increased.

All available evidence indicated the mouth would close if no action was taken, resulting in a potentially catastrophic decline in the ecological character of the Coorong and Murray Mouth. Dredging was assessed as the most effective method for keeping the mouth open, in terms of both cost and the environmental criteria, compared with a range of structural and other methods considered.

Currently one cutter suction dredge operates 24 hours a day seven days a week. The project pumps about one million cubic metres of sand per year and about 1,000 cubic metres of material per day.

The project is fully funded by the Murray-Darling Basin Authority. In 2009, the Authority agreed the dredging should continue. In November 2009, the South Australian Government endorsed this decision and the project will continue until 2014 if required, with funding of up to \$24.5 million being made available.

The Murray Mouth is a critical link in the Coorong and Lower Lakes ecosystem and has significant cultural and social significance.

## **Drought and Adaption**

### ***Water Allocations and Carryover***

South Australia's dependence on, and the competing demands for, water from the River Murray means that it is essential to have a predetermined decision-making process to allocate available water between the different consumptive uses, including irrigation, the environment and critical human water needs, particularly during periods of low water availability.

During 2009-10, water allocation decisions were made fortnightly in accordance with the River Murray Drought Water Allocation Decision Framework. Allocation decisions were based on assessments of water availability received from the Murray-Darling Basin Authority.

Allocation decisions were also made in accordance with special water-sharing arrangements between New South Wales, Victoria and South Australia. These arrangements guaranteed delivery of critical human water needs to South Australia, as well as providing a minimal volume of water for

general allocations early in the water year. The arrangements required that 50 percent of improvements be used to repay NSW and Victoria for the early advance, with the remaining 50 percent available for allocation.

The framework complements the State's medium and long-term strategies *Water for Good* and *Murray Futures* by allocating/sharing, protecting and monitoring the water resources and addressing drought-related issues in the short term.

The framework and resultant allocation decisions contribute to South Australia's Strategic Plan targets T1.1, T1.14, T3.1, T3.9, T3.10 and T3.11.

The framework was amended during 2009-10 to ensure the State Government could meet its commitment to securing 201 GL for critical human water needs in 2010-11, and a further 170 GL for the Lower Lakes Environmental Reserve in 2009-10. This water was secured through water purchase, resource improvements and reduced pumping from the River Murray as a result of improved inflows in the Mount Lofty Ranges Watershed.

Access to floodwaters from Queensland and northern NSW meant additional water could be allocated for irrigation and the environment late in the year, and provided water for allocation decisions at the beginning of 2010-11.

The final allocation level for irrigators was 62 percent of water access entitlement, a significant increase on 2007-08 (32 percent) and 2008-09 (18 percent).

Carryover of unused water from one year to the next year can be a useful mechanism to help licensed water users better manage their business, particularly during periods of restricted water availability. Rather than deliver all of the water on allocation in South Australia in a given year, some water is stored upstream for delivery in the following year. The volume stored is based on an ongoing assessment of seasonal conditions, water-use patterns, allocation levels, water trade and the volume applied for during the carryover application process.

The total volume carried over by private licence holders from 2008-09 for use or transfer in 2009-10 was 94 GL. Government also carried over 201 GL for critical human water needs in 2009-10 and 50 GL for the Lower Lakes Environmental Reserve. It is anticipated that as a result of late allocation announcements in 2009-10, the volume of private carryover in 2010-11 will be higher than in previous years.

## **Science, Modelling and Monitoring**

### ***Assessment of Water Levels, Flows and Salinity***

During 2009-10 regular hydrological modelling, monitoring and assessment of water levels, flows and salinity in the River Murray and Lower Lakes has been undertaken to support the drought response and the development of recovery strategies. These strategies aim to ensure current decisions and future policies provide beneficial water security and environmental outcomes within a context of increasing water scarcity.

Modelling and other technical input has been provided, as required, into the development and implementation of various drought response projects and longer-term management proposals including:

- Water-sharing negotiations with other jurisdictions;
- Micro management of river operations and water delivery;
- Assessing the need for a temporary weir near Pomanda Island;

- The Goolwa Channel Water Level Management Project;
- The Lake Albert Alternative Management Project;
- Options for the delivery of environmental water to the Lower Lakes; and
- Development of the Coorong, Lower Lakes and Murray Mouth Long-Term Plan.

Modelled information has also informed and guided negotiations on various schedules being developed under the Commonwealth Water Act 2007 and the Murray-Darling Basin Plan.

Modelling, monitoring and assessment will continue to support future decision making on sustainable water-sharing arrangements and water allocation under the ongoing low-flow conditions, and as the River Murray System recovers.

Sustainable water-sharing arrangements and water allocation contributes to South Australia's Strategic Plan targets T 1.1, T1.14, T3.1, T3.9, T3.10 and T3.11.

### ***Loxton Salt Interception Scheme***

During the past six years, the Department has used innovative science to help manage salinity along the River Murray, in partnership with SA Water and with support from the Murray-Darling Basin Authority.

A project team developed the Loxton Salt Interception Scheme, which involves the design, construction and development of a series of wells that work to intercept and prevent highly saline groundwater from continually discharging into the River.

The Department and SA Water designed and constructed the scheme's floodplain and highland well fields. They also undertook an exhaustive and successful investigation to develop horizontal drainage wells in the Loxton highlands, and install a cliff-toe drain.

It is anticipated that the scheme will intercept up to 80 percent of the total long-term flux of saline groundwater (and therefore the salt load) entering the river in the Loxton reaches. The project involves capital construction costs of \$19.5 million and will have a positive impact on South Australia's economy, as well as benefiting river and wetland health.

The Loxton Salt Interception Scheme was shortlisted in the Excellence in Research Public Good category of the 2010 South Australian Science Excellence Awards.

### ***South Australian Aquatic Ecosystems Classification***

The Department provided support to the Murray-Darling Basin Authority to:

- Develop a classification and regionalisation for the Murray-Darling Basin; and
- Assess whether the Authority's current register of key environmental assets represent the full range of aquatic habitats in the basin.

It was found that South Australia was well positioned in terms of aquatic ecosystem classification in the Basin. It is the only state in the Basin which has applied the same classification across both rivers and wetlands and aggregated wetlands into management units.

The report also recommended that the classification of South Australian aquatic ecosystems should be applied to the Lower Lakes and Eastern Mount Lofty Ranges, completing coverage in the South Australian portion of the Basin. It was found the full range of aquatic ecosystem habitat types were represented within South Australia's nominations for the asset register.

### ***Bookpurnong Project***

The Bookpurnong research project combined the disciplines of ecology, hydrogeology, geophysics and engineering to deliver innovative floodplain management solutions for significant River Murray environments faced with deteriorating vegetation condition because of salinisation.

The project team assessed four floodplain management options that involved manipulating environmental flows and groundwater management, thereby creating different water availability scenarios. Groundwater freshening and environmental watering reduced root-zone salinity and made freshwater available to stressed trees. Results indicated groundwater freshening influenced tree health up to 150m from the river bank.

The project highlighted the importance of early intervention and demonstrated the benefit of targeting tree communities to retain moderate canopy condition as these trees have the greatest chance of responding.

This project was selected as a finalist in the 2010 South Australian Science Excellence Awards and won the 2009 DWLBC Wallaby Award in the “Making a Difference” category.

### ***River Murray Monitoring and Modelling***

An additional surface water monitoring site was installed at Woods Well to assist program delivery and management for the Coorong and Lower Lakes initiative. The additional site increases the total number of monitoring locations to 13 in the Coorong and Lower lakes.

Intensive monitoring and modelling of River Murray water resource conditions in South Australia and the wider Murray-Darling Basin were undertaken throughout 2009-10. The information collected allowed resource managers to provide accurate and timely scientific and technical advice to government and the wider community. A focus was the State-wide monitoring of water quality as well as the development of suitable models to predict water quality.

Hydrological modelling was regularly undertaken on water levels, flows and salinity in the River Murray and Lower Lakes. This assisted management of the river under extremely low flow conditions and informed specific project decisions.

### ***Using Numerical Groundwater Models to Support Salinity Register Entry***

To meet obligations under the Murray-Darling Basin Authority’s Basin Salinity Management Strategy, South Australia is developing a suite of accredited groundwater models. These models will provide information for salinity registers being set up as part of the strategy. The modelling process will establish scenarios that assist in determining the origin and volume of salt entering the River Murray from groundwater sources. The key achievements of this program to date include:

- Morgan to Wellington Numerical Groundwater Model 2009 report has been completed and published (DWLBC Report 2009/22);
- Morgan to Wellington Numerical Groundwater Model 2010 report has been completed and published (DWLBC Report 2010/09); and
- Three supplementary documents have been completed for the authority to support accreditation of model results for the Salinity Register Entry for Berri-Renmark, Pyap-Kingston and Chowilla.

### ***Modelling for proposed Chowilla Regulator***

The existing groundwater model developed for Chowilla during 2004 was re-run to help assess salinity impacts associated with the Chowilla Creek regulator. Three operating scenarios for the regulator have been completed to provide detailed assessment of potential salt loads.

## **Environmental Flows**

### ***Environmental Water Management***

The need for an organisation to act as River Murray Environmental Manager was established in November 2005 as part of implementing an environmental flows strategy in South Australia to restore river health. The function was assigned to the SA Murray-Darling Basin NRM Board because of the level of accountability, independence and community engagement required.

As national and state governance evolved for the basin it was agreed the function would be more effective if it was located within DWLBC. As a result, a new Environmental Water Management Unit was established in January 2010. Some of the staff engaged to deliver the function transferred to the Department, while others remained at the board.

The Department's Riverine Recovery team also joined the unit once it was established. This decision effectively streamlined delivery and improved ecological outcomes for the river, given there was a significant overlap in the work being carried out by the Riverine Recovery team and the former environmental water management team at the board.

There are four program streams covering Chowilla, the Coorong, the Lower Lakes and Murray Mouth, and Operations and Policy. It is responsible for:

- Managing Living Murray icon sites, including infrastructure development, research and monitoring;
- Allocating, managing and delivering environmental water from several sources, including water allocated to wetlands through the Water Allocation Planning process, The Living Murray initiative for designated icon sites, Commonwealth Environmental Water Holder, donations from private and corporate owners, and unregulated flows;
- Facilitating opportunities to generate environmental benefits through weir pool manipulation; and
- Developing strategic policies and plans.

Key achievements to date include:

- Preparing the business case for the Chowilla regulator and starting to establish the required infrastructure;
- Preparing the Riverine Recovery Plan and associated business case for *Murray Futures*, the State Government's priority program as part of the Australian Government's Water for the Future initiative;
- Successfully negotiating for and managing the delivery of more than 93 GL of environmental water to priority sites;
- Publishing the 2008-09 environmental watering report; and
- Building strong partnerships with key stakeholders.

### ***Environmental Watering***

Environmental water is essential to maintain the health of river, its wetlands and estuarine ecosystems. Due to ongoing low flow conditions, environmental watering for 2009-10 focussed on sites which would help ease stress caused by the drought. The Department worked closely with the Commonwealth Government, the South Australian Murray-Darling Basin NRM Board and other state agencies and community groups to deliver environmental water to priority sites. A workshop with ecologists and wetland managers developed a process to identify and prioritise them.

Sites were selected based on the following principles and criteria:

- Sustain small, critical refuge areas for native plants and animals;
- Maintain critical connectivity between sites;
- Protect previous investments in environmental watering;
- Avoid loss of species;
- Avoid irreversible damage or catastrophic events; and
- Provide drought refuge.

Environmental water bids were developed and submitted to *The Living Murray* and the Commonwealth Environmental Water Holder.

During 2009-10, the Department successfully secured 93,131 ML of environmental water for South Australia's River Murray wetlands, floodplains and Lower Lakes. This included water received from the following sources:

- *The Living Murray* (52,975 ML);
- The Commonwealth Environmental Water Holder (29,917 ML);
- Private donations (54 ML);
- Environmental Land Management Allocation (185 ML); and
- The South Australian River Murray Drought Water Allocation Decision Framework (10,000 ML).

This water was delivered to the following high priority locations along the length of the River:

- Lake Albert (68,300 ML);
- 3 Lower Lakes wetlands (285 ML);
- 11 Chowilla wetlands (13,690 ML); and
- 19 other wetlands (10,856 ML).

A large percentage of this water was delivered via pumping as the sites are above pool level.

Although it is expensive, this is an essential part of delivering environmental water. Some funding is provided by *The Living Murray* and the Commonwealth Environmental Water Holder, however, the Commonwealth expects the State to contribute to the costs.

Each wetland is monitored after watering. In 2009-10, monitoring assessed fish, birds, frogs and vegetation within and around the wetlands, and measured groundwater and surface water levels and quality. The ecological response to the watering was significant and shows that the watering is vital for the protection, maintenance and enhancement of riverine biodiversity. At Chowilla, River red gum, Black Box and River coobah responded to the watering with an increase in canopy growth and new saplings. Increased numbers of Southern Bell frog calls and tadpoles were observed at many wetlands. Endangered fish populations of Murray Hardyhead were protected at Boggy Creek, Regent parrot habitat was watered at Hogwash Bend, and many pairs of black swans built nests at the Markaranka wetland.

### ***Murray Futures – Riverine Recovery***

*Murray Futures* is South Australia's priority program responding to the threats and challenges facing the River Murray. Funded by the Australian Government's Water for the Future initiative, it has four components, including the Riverine Recovery project.

Riverine Recovery aims to achieve long-term improvements in the health of the riverine environment between Wellington and the South Australian border. The project will enable the more effective use of water and support regional communities through an investment of up to \$111.1 million over eight years.

Riverine Recovery will build on the outcomes of *The Living Murray* First Step Decision. It will also position South Australia to effectively implement the Murray-Darling Basin Plan being developed by the Murray-Darling Basin Authority.

The project is also linked to the Murray Futures Long-Term Plan for the Coorong, Lower Lakes and Murray Mouth, extending efforts to build resilience and address river health across the whole of the River Murray system in South Australia.

During 2009-10, the Department prepared and presented a business case to the Australian Department of Environment, Water, Heritage and the Arts outlining a range of projects that could be undertaken with funding investment. These include:

- Optimisation of water delivery by installing environmental regulators and relocating pumps;
- Improved environmental river management by changing water delivery to SA and manipulating weir pools; and
- Adaptive management through a Management Action Database and developing an Environmental Water Decision Support System.

### ***The Living Murray – Icon Site Management***

#### ***Coorong, Lower Lakes and Murray Mouth Icon Site***

The Coorong, Lower Lakes and Murray Mouth is one of six sites in the Murray-Darling Basin identified as a Living Murray Icon Site by the Murray-Darling Basin Authority. During 2009-10, the main focus has been funding and managing monitoring to assess the ecological condition of the site; managing the delivery of environmental water to priority refuge sites in the area; and implementing small-scale on-ground works in Lower Lakes wetlands.

On-ground delivery has been managed through the South Australian Murray-Darling Basin NRM Board.

There have been many notable achievements throughout the year which have contributed to the South Australia's Strategic Plan target T3.1.

#### ***Condition Monitoring***

Condition monitoring is guided and directed by a draft plan for the site, which sets out methodologies to assess progress against 17 ecological targets. A number of long-term ecological monitoring programs continued during 2009-10. These include bird monitoring in the Lower Lakes and Coorong, benthic invertebrate and mudflat monitoring in the Lower Lakes and Coorong, aquatic vegetation monitoring in the Lower Lakes, small-bodied threatened fish monitoring in the Lower Lakes, commercial fish monitoring in the Coorong, and diadromous fish monitoring and tracking around the barrage fishways.

Monitoring programs are implemented by the South Australian Research and Development Institute, Flinders University and the University of Adelaide. A synthesised assessment of progress against each target is developed each year in the form of an annual condition monitoring report.

#### ***Environmental Water Delivery***

The Icon Site received environmental water through *The Living Murray* program in 2009-10 as a wetland site that provides refuge from drought for key species. Water was delivered to Boggy Creek (9 ML) and Turvey's Drain (26 ML) to preserve remnant populations of threatened native fish. Murray Hardyhead is listed as nationally vulnerable under the *Environment Protection and Biodiversity Conservation Act 1999*, whilst Southern Pygmy perch are listed under the State's *Fisheries Management Act 2007*. Monitoring has shown that populations are recruiting, indicating

watering has been a success. The Narrung wetland also received environmental water in spring 2009, with 250 ML delivered to preserve the seed bank of submerged aquatic plants. Monitoring has identified a net increase in seed density in the wetland sediments, successfully achieving another objective of the watering program.

#### ***On-Ground Works in Lower Lakes Wetlands***

2009-10 marked the last year of funding for the Icon Site from the Murray-Darling Basin Authority's Environmental Works and Measures Program. Through this program, management plans have been developed for Lower Lakes wetlands outlining the types of on-ground works required to achieve ecological outcomes.

As a result of recommendations in these plans, stormwater is now being diverted into Milang wetland, a seedbank study has been completed for Dunns and Shadows Lagoons, flow control structure designs have been developed for Tolderol and Boggy Creek culverts, and the Boggy Creek culvert is being upgraded for improved fish passage and flow management. Future activities will be carried out as part of the *Murray Futures* program managed by the new Department for Environment and Natural Resources.

#### ***Indigenous Facilitation***

An indigenous facilitator was employed by the NRM board during 2009-10 through funding from the authority, to provide advice and support to agency staff working on *The Living Murray* projects, especially around indigenous engagement and heritage issues. The indigenous facilitator was also responsible for providing the broader indigenous community with updates on projects at the Icon Site. The outcomes of this position have contributed to target T5.7 of the South Australia's Strategic Plan.

#### ***Chowilla Floodplain Icon Site***

Chowilla is one of six sites in the Murray-Darling Basin identified as being a Living Murray Icon Site. It is also part of the Riverland Ramsar Wetland. The floodplain contains a complex system of creeks, wetlands and floodplain habitats, including the largest remaining area of River red gum woodland in the lower River Murray. It supports a significant population of Murray cod and a diverse range of terrestrial and aquatic biota.

An environmental watering project has been in progress on the Chowilla Floodplain since 2004. The project has now provided water to 28 sites, with many sites being watered three or four times. In 2009-10, about 13.5 GL of environmental water was delivered, with water sourced from *The Living Murray* initiative, Commonwealth and state contributions. Monitoring reports will be submitted once post watering data has been collected.

The environmental watering project has resulted in many positive outcomes for the floodplain, such as breeding events for many frog species, most notably the listed Southern Bell frog. Thousands of water birds used wetland and floodplain sites for drought refuge, feeding and breeding. In addition, vegetation responded strongly, temporarily reversing the decline of many River red gums, River coobah and Black Box trees and re-establishing flood-dependent wetland understorey species. By comparison, the condition of understorey vegetation across the unwatered area of the floodplain revealed increasing soil salinity levels, with the majority of the floodplain being dominated by drought or salt tolerant species.

Consultation and communication activities continued throughout 2009-10, with regular tours, media and presentations occurring. Communication materials were prepared, based on assessment of



community interests and concerns. Frequently Asked Questions and fact sheets containing information about the Chowilla Environmental Regulator were distributed widely.

Construction of the Chowilla Environmental Regulator and associated structures began in January 2010. When complete, this work will enable the inundation of up to one third of the floodplain under low river-flow conditions. Currently the majority of works are focused on the environmental regulator site where a coffer dam has been built, allowing the creek bed to be excavated. It is expected these structures will be operational in early 2012.

Planning for regulator operation is underway, with the preparation of literature reviews, hydrological requirements of floodplain biota, and conceptual models for the floodplain and its biota. Detailed investigations and workshops have been undertaken to inform aspects such as water availability and delivery, real-time salinity data, the responses of fish and vegetation, and operating constraints. This information is critical to developing both initial and long-term operating strategies.

## **River Murray salinity**

### ***Salinity Policy and Accountability***

Salinity remains a significant issue for South Australia because of the State's location on the lower reach of the River Murray, with the river acting as a drain for salt from the landscape, the influence of human development in mobilising salt to the river, and the ultimate implications of salinity in terms of water quality for all uses, including critical human water needs.

South Australia is committed to managing salinity under the Murray-Darling Basin Authority's Basin Salinity Management Strategy. The State Government also recognises the importance of salinity management through actions and targets in key state-level strategies and plans. These include:

- *Water For Good* (Action 56): Maintain a positive balance on the Murray-Darling Basin Authority's Salinity Register, and continue to implement strategies and actions to ensure the real time management of salinity in the lower reaches of the River Murray so that water quality remains at levels suitable for human consumption; and
- South Australian Strategic Plan Target (T3.11): River Murray Salinity – South Australia maintains a positive balance on the Murray-Darling Basin Authority's Salinity Register.

The Department's key achievements to manage salinity in 2009-10 included:

- South Australia remains in positive balance on the authority's Salinity Registers following endorsement of the registers in November 2009, by the Murray-Darling Basin Ministerial Council;
- A review of water quality and salinity for the River Murray in South Australia was completed with cross-government input. The draft findings were provided to the authority to help inform development of a Basin-wide strategy to manage water quality and salinity as part of the Murray-Darling Basin Plan. The plan is of major significance to future management of the River Murray, and it is important that South Australia provides constructive input;
- A project examining the future risk of South Australian entries on the authority's salinity registers was completed. The outcomes are being used to inform the development of a new salinity management program for the River Murray in South Australia;
- Work continued on groundwater models to support the annual update of data entries on the authority's salinity registers. It is critical the models are continually updated to ensure they reflect current reality;
- Work continued with the authority to initiate a project to investigate the risk at Basin scale of floodplain salt storages mobilising and increasing river salinity;

- A South Australian specific project was initiated to quantify the local risk of floodplain salinity to the River Murray and identify specific mitigation strategies that could be driven from within the State;
- A 'salinity horizons' project broadly quantified the long-term risk of actions not already included on the salinity registers, such as climate change, new diversion limits and environmental watering impacts. The outcomes will be used to ensure a new salinity program being developed includes an appropriate scale of investment in mitigating actions;
- South Australia is working to conduct a full assessment of the salinity risk posed by the Chowilla Environmental Regulator. This will facilitate the future development of an appropriate operation strategy for the regulator to minimise these impacts;
- Work progressed on construction of the Murtho Salt Interception Scheme;
- The 'How efficient are we?' project documented the historical improvement of water use efficiency in the South Australian Murray-Darling Basin;
- A final report for implementing Codes of Practice for Pressurised Irrigation neared completion;
- Staff continued to provide input on implementation of the Pike, Bookpurnong, and Pyap to Kingston Land and Water Management Plans. The Bookpurnong Land and Water Management Planning Areas released their second sustainability report for the region;
- Evaluation of Land and Water Management Plans in South Australia commenced; and
- Development of a new program for salinity management in South Australia was initiated to ensure that State can continue to achieve its target as part of the State Strategic Plan, and to deliver against the related Action 56 in the *Water for Good* plan.

Significant work will be required in the coming period to:

- Finalise development of the new salinity program, including identification of strategies for investment in salinity mitigation actions;
- Respond to the Water Quality and Salinity Management Plan within the Murray-Darling Basin Plan;
- Develop a clear policy position on managing the salinity impacts of environmental watering;
- Address the management of real-time salinity impacts, including development of appropriate operational responses (such as additional water for dilution flows); and
- Continue groundwater modelling support to underpin South Australia's entries on the Basin Salinity Management Strategy salinity registers.

### ***River Murray Salt Interception Schemes***

River Murray salinity has long been a natural resource management priority for South Australia, largely as a consequence of the State's dependence on the River Murray for a range of critical uses.

One of the key tools available for reducing salinity in the River Murray is salt interception. A number of Salt Interception Schemes (SIS) have been constructed to intercept highly saline groundwater and transport it away from the River Murray for disposal.

South Australia has seven operating schemes, with an eighth under construction at Murtho in the Riverland. Combined, the operating schemes intercept about 159,000 tonnes of salt per year and help to maintain the water quality of the River Murray.

Construction of the Murtho scheme was officially launched in September 2009, with the South Australian Minister for the River Murray and the Commonwealth Minister for Water present at the event.

In 2009-10, significant work was undertaken to implement the Regional Disposal Strategy, which aims to increase the size and long-term viability of the Noora Disposal Basin.

No formal decision was made by the Murray-Darling Basin Authority in the reporting period regarding construction of a salt inception scheme at Pike SIS becoming a joint works. The MDBA accepted it is a technically-sound proposal, and agreement has been reached to utilise South Australia's investment upfront. The MDBA invested funds into detailed design work for the scheme.

Construction of the Waikerie scheme has been completed and the authority has accepted the scheme as operational, and the associated credits have been lodged for inclusion on the basin's salinity register. Construction of the Loxton Highland scheme continues, with work expected to be completed by September 2010.

## **River Murray Management**

### ***River Murray Act 2003***

The 2008-09 Save the River Murray Fund annual report included a summary of recommendations arising from a review of the *River Murray Act 2003* (RM Act) in light of the South Australian Planning Review and referral of powers to the Commonwealth in relation to Murray-Darling Basin management. The draft review was presented to the Minister for the River Murray with a number of options for the future of the RM Act and its operations.

Implementation the RM Act is currently focussed on technical advice for specific planning issues, such as riverbank collapse. Mapping of risks and the actual occurrence of riverbank collapse and riverbank erosion provide valuable information to help assess development applications and other referrals made under the RM Act.

During 2009-10, the Department developed and consulted on a Draft Best Practice Guide for boat users on the River Murray. This guide will be finalised during 2010-11.

Acts and programs assisted by the administration of the RM Act include the *Development Act 1993*, the *Mining Act 1971*, the *Aboriginal Heritage Act 1998*, the *Historic Shipwrecks Act 1981*, the *Harbours and Navigation Act 1993*, the *Environment Protection Act 1993*, the *Fisheries Management Act 2007*, the *Native Vegetation Act 1991*, the *Natural Resources Management Act 2004*, the *Crown Lands Act 1929*, the Branched Broomrape Eradication program, Ramsar programs, threatened species programs, the sand dumping compliance program, and the Adelaide and Mount Lofty Ranges and the SA Murray-Darling Basin NRM board programs.

The focus of the RM Act compliance program continues to be on negotiation and education, delivering real results in avoidance of harm to the River Murray and its environment.

In the administration of the RM Act during 2009-10, 401 mandatory referrals were assessed under Schedule 8 of the Development Regulations against the objects of the RM Act and the objectives for a healthy River Murray. Referrals relate to buildings, land divisions, land use, river use and water use, activities in riparian zones and native vegetation. All of the mandatory referrals were responded to within required statutory timeframes (eight weeks).

### ***Lower Murray Embankments Program***

The principal role of embankments constructed in the Lower Murray is to protect reclaimed floodplains and wetlands used for agricultural purposes. The embankments also serve to contain the main river channel, and facilitate recreational activities, including walking, cycling and fishing.

Government-owned sections of the embankments have a total length of just less than 67km, a mean height of about 2m and a mean top width of about 2.25m.

Significant cracking identified in the previous year did not increase substantially along 35km of the embankments. The cracking was caused by prevailing drought conditions.

A detailed investigation into the possibility of water leakage under the embankments, the extent of cracking and more accurate heights of the embankments was undertaken in order to develop strategies and plans for their remediation.

### ***Unbundling of Water Licences in the River Murray***

In order to implement reforms of the National Water Initiative, the Department developed policies to unbundle licences issued under the *Natural Resources Management Act 2004* (NRM Act) into five separate elements - entitlement, allocation, site use approval, works approval, and delivery capacity share.

The NRM Act was amended to formally recognise these unbundled elements. This amendment came into effect on 1 July 2009. The amendments include transitional arrangements allowing for the coexistence of bundled and unbundled water access entitlements as the State's numerous prescribed water resources are progressively unbundled.

Policies have been developed for the River Murray prescribed watercourse to facilitate the unbundling of its water access entitlements to coincide with the provisions in the revised NRM Act. This necessitated significant changes to the River Murray Water Allocation Plan (WAP) and, although significant community consultation was undertaken to explain the new license instruments, the amendments to the WAP were made on a 'no policy change' basis. This significant reform was achieved very smoothly, with new instruments being issued to every river licensee early in the 2009-10 irrigation season.

During the year, significant upgrades and amendments were actioned to prepare the Department's water licensing system (WILMA) to deal administratively with the new unbundled environment.

### ***River Murray Water Licensing***

Implementation of the River Murray Water Allocation Plan, the *Natural Resource Management Act 2004* and the *River Murray Act 2003* continued in 2009-10 to ensure water rights for River Murray water users were protected during the continued drought conditions, and that transfer of these rights, where appropriate, occurred efficiently.

From 1 July 2009, new legislation enabled the unbundling of existing water licences along the River Murray in South Australia. The separation of approvals to take and use water from dealings in water access entitlements and allocations presented a simpler and more efficient administrative process to sell all or part of a water right and cost savings to the water user.

Programs associated with the administration of the River Murray salinity zoning policy and support of South Australia's salinity reporting obligations continued ensuring the effective transfer of water allocations, water use monitoring and reporting.

Extremely low inflow conditions across the basin severely impacted on the share of water resources available to South Australian users. A major priority for 2009-10 was the administration of water restrictions and water conservation programs which included increased compliance and monitoring of water use.

In support of these programs, quarterly consumption advice, drought 'top up' water trading and water carryover continued in 2009-10 to meet the increasing demands from managers and users of the River Murray.

Individual water transfer numbers were 56 percent lower than 2008-09, primarily because of higher allocations than in 2008-09 as a result of a slight improvement in inflow conditions.

**A summary of water allocation transfer activity in 2009-10 and comparison with 2008-09 is detailed in the table below.**

	2008-09		2009-10	
	No.	Volume (GL)	No.	Volume (GL)
<b>Trade into SA</b>				
NSW	2262	317.4	434	210.2
VIC	300	22.5	478	64.4
<b>Trade from SA</b>				
NSW	10	0.3	24	4.2
VIC	63	4.7	71	17.8
<b>Trade within SA</b>				
Temporary	789	409.61	491	223.7

An increase occurred in permanent water entitlement transfers within South Australia for 2009-10. This was mainly the result of purchases by the Federal Government as part of the Murray-Darling Basin Small Block Irrigators Exit Grant Package.

A summary of water entitlement transfer activity in 2009-10 and comparison with 2008-09 is detailed in the table below.

	2008-09		2009-10	
	No.	Volume (GL)	No.	Unit Shares
<b>Entitlement Trade</b>				
Permanent	233	49.9	472	84,182,012
Temporary	789	409.61	21	1,020,880

#### ***Angas Bremer/Mallee/Marne Saunders Water Licensing***

Other Murray-Darling Basin Water Allocation Plans for the Angas Bremer and Mallee Prescribed Wells Areas continued to be implemented. The primary focus for 2009-10 was on the provision of efficient water licensing and trading approvals and administration, water use monitoring and reporting, and the provision of support to the South Australian Murray-Darling Basin NRM Board in its review of these plans.

Water resources of the Marne and Saunders River catchments, including groundwater, were prescribed on 20 March 2003 and licences were issued to existing users on 30 June 2010, following adoption of the Marne Saunders Water Allocation Plan.

Additional areas of the Murray Mallee were prescribed during 2005, including the Hundreds of Brandon, Wilson, Marmon Jabuk, Vincent and Hooper which were included within the Mallee Prescribed Wells Areas, and Hundreds of Peake, Roby and Sherlock. These formed the separate Peake, Roby and Sherlock Prescribed Wells Area. Existing users of the water resources are authorised to continue taking water at their existing levels of use. The Department's Murraylands

staff have been working with the NRM Board in the development of draft water allocation plans for these areas.

### ***Saline Water Disposal Basins***

The Department operates and maintains 17 drainage disposal basins in the Riverland area. Individual asset management plans have been prepared for each drainage basin.

Infrastructure plans were also developed for the Disher Creek disposal basin in order to provide a sustainable habitat for the endangered fish species, Murray Hardyhead. Repair work began on structures at the Loveday Basin.

### ***River Vessel Waste Disposal Stations***

During the year, the Murray Bridge station was upgraded with new facilities. The Goolwa station was demolished due to safety concerns regarding broken structural members. A replacement facility is being developed as part of a modern, vessel berthing facility for Goolwa in conjunction with the Alexandrina Council.

Due to ongoing drought conditions and low water levels in the River Murray between Lock 1 and the Murray Mouth, the Walker Flat Waste Disposal Station was closed to the public because there was a high risk of riverbank collapse. Remedial investigations and plans to bring the site back into service will be undertaken in the next 12 months.

Investigations for options to upgrade sewage treatment at disposal stations at Lock 3 and Lock 6 were completed during the financial year.

## **Riverbank Collapse Hazard Program**

### ***Hazard Plan and Program Management***

Riverbank collapse is a new hazard for South Australia along the 210km stretch of the River Murray between Lock 1 at Blanchetown and Wellington. Low water levels have reduced the stability of some sections of riverbank along this stretch of river. The possibility of collapse poses risks to people actually on the riverbank, and to those using the riverbank to tie up a boat or secure a larger houseboat.

The potential for riverbanks to collapse between Blanchetown (Lock 1) and Wellington was elevated to an official State Hazard under the provisions of the *Emergency Management Act 2004* in November 2009.

A Riverbank Collapse Hazard Plan was drafted and approved in December 2009. The plan outlines the responsibilities, authorities and mechanisms to minimise risk to human life and to prevent, mitigate, respond, manage and recover from riverbank collapse incidents along the Lower River Murray in South Australia.

A Riverbank Collapse Hazard Advisory Group has been formed to assist and guide the Hazard Program Leader in the execution of the Hazard Plan.

A risk assessment also commenced to identify the extent of risks associated with riverbank collapse along the Lower River Murray, and appropriate methods for managing these risks and associated liabilities.

### ***Communication, Public Awareness and Reports***

A hotline was established in November 2009 to provide an avenue for people to report riverbank collapses, signs of potential collapse or to obtain information. This hotline operates 24 hours per day, seven days a week.

During 2009-10, the hotline received six reports of bank collapse, 16 reports of bank/road cracking and 21 reports of tree-related hazards due to riverbank instability. A further 30 hotline calls were received requesting further information on riverbank collapse.

These hotline reports took the total number of reports to 125, including 35 relating to collapses, 55 relating to bank or road cracking, and 35 tree-related.

A public communication campaign was undertaken to educate the community about the risks of riverbank collapse. This campaign included print, radio online and outdoor advertising, printed materials, signage, a direct mail-out and site visits. This material targeted locals living along the affected stretch of river, and tourists visiting the river.

A safe work guide was also developed to provide information to government agencies, local communities and the public on safe work practices along the Lower River Murray.

### ***Project Site Operations and Management***

A tree management program commenced in the Lower River Murray in collaboration with the Department for Transport Energy and Infrastructure's marine safety section. The program was successful in mitigating hazardous trees that pose a direct risk to public safety and those affecting riverbank stability.

An assessment of high-risk sites commenced to identify long-term site management strategies in collaboration with local land owners. Geotechnical engineering advice has been sought to assist in developing management options. Key sites included:

- Ngaut Ngaut Conservation Park;
- East Front Road, Mannum;
- Caloote Landing;
- Woodlane Reserve;
- Riverfront Road, Murray Bridge; and
- River frontage at Tailem Bend.

### ***Investigations and Technical Studies***

During 2009-10, the Department conducted a range of studies into the broad issue of riverbank collapse. Sinclair Knight Merz (SKM) was engaged to carry out site-specific geotechnical investigations to identify hazards at a number of locations in the Lower Murray. An investigation into the future restoration of water levels and the influence this will have on riverbank stability has also been undertaken. This study determined that while increasing water levels generally had a positive effect on riverbank stability, at some sites it might actually decrease safety.

A routine monitoring program commenced, and identified deterioration at a range of riverbank collapse sites. Mitigation activities were implemented to maintain public safety.

Work began to develop a risk map of riverbank collapse in the Lower Murray. Predictive modelling was used to identify high-risk sites.

## Lower Murray Reclaimed Irrigation Areas

The Lower Murray Reclaimed Irrigation Areas Program was finally acquitted in June 2010, with all on-ground works completed in December 2009. Covering multiple phases since it started in 2004, the program comprised a multi-faceted suite of reforms to improve both the sustainability of irrigated agriculture and the health of the River Murray. The program included initiatives to facilitate industry restructuring, build irrigator capacity, divest government ownership and assist irrigators to rehabilitate their infrastructure so they could meet targets for water use efficiency and water discharge quality.

The program was funded under the National Action Plan for Salinity and Water Quality, which provided \$22.1 million. Over the life of the program, the following initiatives were successfully completed:

- Designing a 25-year system to improve water use compliance and efficiency for 72 farmers managing 4,038 hectares, including installing 135 water meters, drainage capture and reuse systems;
- Converting to private management the remaining eight government irrigation districts and the 22 private irrigation trusts associated with them;
- Managing a restructure plan to help irrigators exit the industry or consolidate their enterprises, including preliminary farm business planning for individual farmers;
- Assisting the sustainability of agriculture on the floodplains;
- Reducing water application rates, conservatively from 26 ML to 10 ML per hectare, saving a total of 64.6 GL per year;
- Reducing *E. coli*, nitrogen and phosphorus counts in run-off water by at least 70 percent; and
- Permanently closing all 135 unmetered sluices in the region's levee banks.

A review of the program in 2009-10 confirmed that despite several challenges, it was successful in meeting its aims and objectives.

## Compliance and Enforcement

The Department's Investigations Unit investigates alleged breaches of the *Natural Resources Management Act 2004*, the *Native Vegetation Act 1991*, the *River Murray Act 2003*, the *Upper South East Dryland Salinity and Flood Management (Extension of Project) Amendment Act 2009* and the *South Eastern Water Conservation and Drainage Act 1992*.

During 2009-10, 327 matters were referred to the unit for investigation, with all matters having been investigated or currently under investigation.

A number of successful prosecutions were completed during the year, the most notable of which resulted in a Riverland Company and its Director being fined \$324,000 for a number of breaches of the *Native Vegetation Act 1991*. There were no prosecutions for water theft in the past 12 months, which directly relates to the diligent actions of the Department and its staff in response to the drought. Nine matters are with the Crown Solicitors Office for review.

The unit also continued to focus its efforts on providing a presence on the ground along the River Murray to discourage irrigators and holiday home owners from taking water without authority. The irrigation community have generally been compliant but a number of expiations were issued with respect to holiday homes. The Compliance Program issued 371 informal cautions, 329 formal cautions and 53 expiation notices.



Patrol staff also assisted Department staff monitoring riverbank collapses by providing an on-ground presence to help identify areas where slumping was occurring and to respond to reports of slumping incidents. Patrol staff also continued to provide an educational service to holiday home owners and others in relation to the drought, water usage and riverbank collapse.

Compliance patrol staff were responsible for detecting 117 additional matters that were referred to other agencies. These included sand dumping occurrences which were referred to the Environmental Protection Authority, and matters related to the Development Act, which were referred to the relevant local councils.

Another focus of attention for the unit was monitoring water usage in nominated areas. A controlled audit program was conducted in the McLaren Vale Prescribed Wells Area where staff inspected 150 wells. A meter audit was also conducted in the Lower Murray Reclaimed Irrigation Area to identify water use and potential problems with meters. An ongoing audit is being conducted on meters in the Murray Mallee areas, with staff attending sites at random prior to or following the monthly meter reads. To date, 3,020 meter inspections have taken place in the region with 165 matters being referred for further attention by investigation and/or licensing staff. Water licensing staff assisted greatly in these projects.

## Program 3 – Water Security

### National Water Initiative Implementation Program

In May 2007, the Commonwealth Government and the Government of South Australia agreed to provide financial and in-kind contributions to a total of \$25.9 million to the National Water Initiative Implementation Program. The Department led this program and managed 22 individual projects to implement the National Water Initiative in South Australia. They included projects to implement a natural resources management information system, establish a River Murray Environmental Manager, implement a nationally-compliant water accounting systems, and develop a compatible water register. The program was finished successfully during 2009-10, when 20 projects were completed. The remaining two projects were completed earlier in 2008-09.

### Office for Water Security and Commissioner for Water Security

The Office for Water Security has been operational since March 2008. The office was established as a division of the Department to coordinate the development of water policy on a whole-of-government basis – as well as to support the Independent Commissioner for Water Security, Robyn McLeod, who was appointed in November 2008.

During 2009-10, the primary role of the Commissioner and the Office for Water Security was to oversee implementation of South Australia's *Water for Good* plan, including a community education and engagement campaign; the \$610 million *Murray Futures* program; and major stormwater projects. The Office for Water Security also supported the Water Security Council in providing strategic advice to the Minister for Water Security, and continued to work with the Stormwater Management Authority to improve stormwater outcomes. These activities have been integral to supporting the Department's function of ensuring secure and sustainable water for communities, including those reliant on the River Murray.

### Water for Good

During the reporting year, the Office for Water Security was responsible for overseeing the implementation of the State water security plan, *Water for Good*. Launched in June 2009, this landmark document is the blueprint for the State's water security to 2050 and beyond.

The plan is the result of collaboration between Australian, state and local government policy makers, leading water scientists, climate and catchment specialists, agriculturalists, industrialists and water industry experts.

Aiming to provide South Australia with the most secure water supply system, the plan also seeks to diversify the State's water supplies to reduce reliance on the River Murray and other rain-dependent water sources.

A vital component of the plan's actions is the development – with community involvement – of detailed water demand and supply plans for each of South Australia's NRM regions. This will ensure that long-term solutions are based on a thorough analysis of local resources, the demand for them, and likely future pressures.

The regional plans will sit alongside *Water for Good* and support and inform its delivery in the short, medium and long-term. A draft demand and supply plan is currently being prepared for the Eyre Peninsula region.

The *Water for Good* plan includes 94 actions, 95 percent of which are due to be completed or underway by 2014, including:

- Constructing the Adelaide Desalination Plant to provide first water by the end of 2010 and 100 GL per annum by the end of 2012;
- Substantially increasing our current stormwater capture and reuse across South Australia, with a target to recycle up to 75 GL a year in the long-term, increasing the already high percentage of wastewater recycled across South Australia for non-drinking purposes (to reach a target of 45 percent by 2013);
- Appointing an independent regulator to oversee service standards and pricing for monopoly water and wastewater suppliers while retaining government ownership of water infrastructure; and
- Introducing legislation to foster a competitive water industry and allow third-party access to government water infrastructure.

Details of the *Water for Good* plan and a full list of policy actions are available to download at [www.waterforgood.sa.gov.au](http://www.waterforgood.sa.gov.au)

Action to implement the plan commenced immediately on its release on 29 June 2009. Key progress to date includes the following activities:

- Construction of the Adelaide desalination plant, which is on-track to deliver first water in December 2010;
- Detailed investigations by SA Water at two potential locations for a desalination plant on the Eyre Peninsula;
- A successful bid to the Australian Government in late 2009 for projects valued at \$150 million that will harvest about 8 GL of stormwater for reuse;
- Local government securing further Australian Government funding of \$19.2 million for stormwater and wastewater projects throughout South Australia, announced in June 2010. The projects will collectively harvest almost 3 GL per year;
- Implementation of an extensive *Water for Good* education campaign to raise awareness of key water issues. The campaign was designed to educate South Australians about water conservation and the importance of diversity of supply;
- The launch of the *Water for Good* website on 29 June 2009. The site contains clear and readily accessible information on South Australia's water resources, and information to help the community improve water-use practices;
- Implementation of *WaterWise Communities*, an initiative of the *Water for Good* community education campaign undertaken by the State Government in partnership with the Local Government Association. Forty-seven councils supported *WaterWise Communities* and gave out free kits to local households, businesses and community groups to encourage them to register as members. More than 2,600 householders and 150 businesses and community groups joined up to pledge their commitment to using water wisely and keep in touch with water saving activities in their local area and across the State. More than 190 caravan parks, South Australia's houseboat hirers, other tourism operators and University of SA accommodation providers also promoted wise-water tips to their guests;
- Enhancement of the H<sub>2</sub>OME Rebates Scheme (introducing new rebates for water saving household appliances and goods to further encourage water efficiency) and the Business Water Saver Program, development of the Urban Landscape Program and introduction of Smart Billing by SA Water;
- Securing Australian Government funding of \$5.5 million to improve water supplies and water conservation programs in the Amata and Mimili remote communities;

- Announcing the Goyder Research Institute and participation in the Cities for Water Supply Catchments national research initiative to significantly progress water research and the implementation of water sensitive urban design in South Australia;
- Enhanced environmental flows for the River Murray and Lower Lakes;
- Significant progress towards introduction of the Water Industry Act and the Safe Drinking Water Act in late 2010; and
- Significant progress establishing the framework to appoint ESCOSA as the independent economic regulator for monopoly suppliers of urban and regional water and wastewater services in South Australia from 2010.

The Department has lead agency responsibility for 54 actions in *Water for Good* and is a partner agency in 22 others. The implementation of *Water for Good* will be a vital part of the Department's work moving forward.

The Commissioner for Water Security coordinates the monitoring and evaluation of *Water for Good*. It is anticipated that an annual statement of progress will be released by the new Minister for Water in late 2010.

### **Murray Futures Program**

With \$610 million in funding from the Australian Government, the *Murray Futures* program operates under the Australian Government's *Water for the Future* framework, the South Australian Strategic Plan (targets T3.1, T3.9, T3.10, T3.11) and *Water for Good* (Action 54).

South Australia has responsibility for delivering three priority projects over a 10-year period. They are the \$120 million Lower Lakes Integrated Pipeline Network Project, the \$200 million Lower Lakes and Coorong Recovery Project, and the \$100 million Riverine Recovery Project. Two other projects are being delivered by the Australian Government – the Industry Renewal Project (\$110 million) and the Water Buy Back program (\$80 million).

#### ***Lower Lakes Integrated Pipeline Network Project***

This project aims to provide secure potable and irrigation water supplies to drought-affected communities around Lakes Alexandrina and Albert. During 2009-10, all pipelines reached practical completion, having been built and commissioned within very fast timeframes. These were the first priority projects funded by *Water for the Future*, to be delivered and completed in Australia.

#### ***Lower Lakes and Coorong Recovery Project***

On 4 Jun 2010 the State Government released a 20-year road map to help restore the health of the Coorong and Lower Lakes. The long-term plan outlines a series of management actions that will contribute to the long-term health of the region. A detailed proposal to fund management actions identified in the plan was provided to the Australian Government. In advance of funding these actions, the Australian Minister for Water announced funding for four early works projects to mitigate major environmental risks in the region.

Prior to the approval of the early works by the Federal Minister, a project was initiated to mitigate significant acidification risks in Currency Creek, the Finniss River and parts of the Goolwa Channel. Funded through the *Murray Futures* Program, this project has been a critical factor in securing the ecological, social and economic future of the Lower Lakes.

#### ***Riverine Recovery Project***

In late June 2010, a business case and plan to establish a functional river was delivered to the Australian Government. The Plan aims to achieve long-term improvements in the health of the

riverine environment between Wellington and the South Australian border. The project will enable more effective use of water and support regional communities.

The Riverine Recovery project will build on the outcomes of '*The Living Murray First Step Decision*'. It will also position South Australia to effectively implement the Murray-Darling Basin Plan in partnership with the Murray-Darling Basin Authority. The Plan aims to optimise water delivery by installing environmental regulators, relocating pumps and improving environmental river management through changed water delivery to South Australia and weir pool manipulation.

## **Stormwater Program**

In November 2009, the Australian and South Australian Governments announced that eight stormwater projects were successful in securing funding under round one of the *Special Call for Stormwater Harvesting and Reuse Projects*. The funding is provided through the Australian Government's *Water for the Future* framework, under the *National Urban Water and Desalination Plan*. Seven of these projects form the South Australian Government's stormwater program. The eighth project was put forward independently by the City of Unley.

Together these seven projects will receive more than \$63.7 million in Commonwealth funding and around \$45 million from the State Government, with the balance provided by councils and other partners.

The stormwater projects fit under a framework that includes the Australian Government's *Water for the Future*, South Australia's Strategic Plan (targets T3.9, T3.5 and T.1.21) and *Water for Good* (Actions 11, 13 and 15).

The seven stormwater projects are:

1. Water Proofing the West (Stage 1): A project in partnership with the City of Charles Sturt and others to provide infrastructure for capturing, treating and supplying stormwater to replace potable water for irrigation and industrial use;
2. Water Proofing the South (Stage 2): A project in partnership with the City of Onkaparinga to harvest stormwater at five sites and divert into wetlands for treatment and injection into the aquifer for storage and later recovery;
3. Water for the Future: A project in partnership with the City of Playford to harvest stormwater and build distribution infrastructure to enable potable replacement for irrigating sporting fields, reserves and industrial uses;
4. Unity Park Biofiltration Project: A project in partnership with the City of Salisbury to trial small footprint biofiltration technology;
5. Adelaide Airport Stormwater Scheme: A project in partnership with SA Water to harvest stormwater for comparison treatment using biofiltration and mechanical treatment prior to injection into the aquifer and recovery for commercial use;
6. Barker Inlet Stormwater Reuse Scheme: A project in partnership with SA Water to capture and treat stormwater via existing wetlands and an aquifer storage and recovery scheme; and
7. Botanic Gardens First Creek Wetland Aquifer Storage and Recovery Project: A project in partnership with the Department for Environment and Natural Resources to construct a wetland and aquifer storage and recovery scheme that will provide fit-for-purpose water to irrigate the Adelaide Botanic Gardens.

Once these projects are completed and operational, they are expected to yield in the order of 8 GL of stormwater per annum. In accordance with Australian Government funding requirements, construction must be completed by the end of June 2013.

A funding agreement between the Australian Government and the State was signed on 24 February 2010. It sets out project and program objectives, the responsibilities and governance arrangements for the program, terms, conditions and schedules of funding and various terms and conditions of operations. The delivery partners have entered into subordinate agreements with the Government of South Australia.

A Stormwater Program Advisory Board has also been established to assist in the timely and effective administration of the program. The board oversees the administration of the funding and monitors the overall progress of projects. It will ensure effective project governance and business processes, and compliance with funding agreements.

The board provides a forum for independent review of project progress and guidance on key project issues. It is chaired by the Commissioner for Water Security and has membership from the Department, the Department of Treasury and Finance, Australian Government Department of the Environment, Water, Heritage and the Arts, SA Water and the Local Government Association of South Australia. The first meeting of the Advisory Board was held in May 2010 and meetings dates have been set on a quarterly basis.

The Department will manage the relationships and contracts with the Australian Government and delivery partners on behalf of the Minister, including progress reporting to ensure successful delivery of the Stormwater Program.

# Appendices

## Appendix A – Management of Human Resources

### Employee Numbers, Gender and Status

Total Number of Employees		
Persons	617	
FTEs	580.9	<i>(FTEs shown to 1 decimal place)</i>

Gender	% Persons	% FTEs
Male	54.78	56.15
Female	45.22	43.85

Number of Persons During the 09-10 Financial Year	
Separated from the agency	118
Recruited to the agency	131

Number of Persons at 30 June 2010	
On Leave without Pay	12

### Number of Employees by Salary Bracket

Salary Bracket	Male	Female	Total
\$0 - \$49,199	68	49	117
\$49,200 - \$62,499	67	104	171
\$62,500 - \$80,099	120	78	198
\$80,100 - \$100,999	70	44	114
\$101,000+	13	4	17
<b>TOTAL</b>	<b>338</b>	<b>279</b>	<b>617</b>

*Note: Salary details relate to pre-tax income excluding super and fringe benefits tax (FBT). Non-executive employees on salary sacrifice arrangements are shown as pre-sacrifice values. Executive employees are shown as the value of the financial benefits component of their Total Remuneration Package Value excluding super. Non-financial benefits and allowances are excluded for all employees. The salary brackets have been constructed as an approximation for the level of responsibility, and are based on the current remuneration structures of the PS Act Administrative Services Stream with consideration of the Operational, Professional, Technical and Executive Streams.*

### Status of Employees in Current Position

FTEs	Ongoing	Short-Term Contract	Long-Term Contract	Other (Casua	Total
Male	191.30	54.20	61.03	19.63	326.16
Female	144.28	47.40	55.57	7.46	254.71
<b>TOTAL</b>	335.58	101.60	116.60	27.09	580.87

PERSONS	Ongoing	Short-Term Contract	Long-Term Contract	Other (Casua	Total
Male	193	55	62	28	338
Female	158	51	59	11	279
<b>TOTAL</b>	351	106	121	39	617

### Executives by Gender, Classification and Status

	Untenured		Total				
Classification	Male	Female	Male	%	Female	%	Total
Exec B	2		2	12.5			2
CEO	1		1	6.25			1
SAES1	5	3	5	31.25	3	18.75	8
SAES2	4		4	25			4
Comm WS		1			1	6.25	1
<b>Total</b>	12	4	12	75.0	4	25.0	16

### Average Days Leave Per Full Time Equivalent Employee

Leave Type	2006-07	2007-08	2008-09	2009-10
Sick Leave	5.67	7.05	6.25	7.35
Family Carer's Leave	0.79	0.86	0.91	0.83
Miscellaneous Special Leave	0.61	0.81	0.80	1.0



## Workforce Diversity

### Aboriginal and/or Torres Strait Islander Employees

Salary Bracket	Aboriginal Employees	Total Employees	% Aboriginal Employees	Target*
\$0 - \$49,199	2	117	1.71	2%
\$49,200 - \$62,499	1	171	0.58	2%
\$62,500 - \$80,099	0	198	0	2%
\$80,100 - \$100,999	1	114	0.88	2%
\$101,000+	0	17	0	2%
<b>TOTAL</b>	<b>4</b>	<b>617</b>	<b>0.65</b>	<b>2%</b>

\* Target from SASP

### Number of Employees by Age Bracket by Gender

Age Bracket	Male	Female	Total	% of Total	2010 Workforce Benchmark*
15-19	2	2	4	0.65	6.1%
20-24	8	13	21	3.4	10.6%
25-29	35	34	69	11.18	10.5%
30-34	38	58	96	15.56	9.4%
35-39	33	41	74	11.99	11.2%
40-44	38	27	65	10.53	11.1%
45-49	53	36	89	14.42	12.2%
50-54	54	39	93	15.07	11.0%
55-59	51	18	69	11.18	9.2%
60-64	20	8	28	4.54	6.0%
65+	6	3	9	1.46	2.9%
<b>TOTAL</b>	<b>338</b>	<b>279</b>	<b>617</b>	<b>100</b>	<b>100.0</b>

\*Source: Australian Bureau of Statistics Australian Demographic Statistics, 6291.0.55.001 Labour Force Status (ST LM8) by sex, age, state, marital status – employed – total from Feb78 Supertable, South Australia at May 2010.

## Cultural and Linguistic Diversity

	Male	Female	Total	% of Agency	SA Community*
Number of employees born overseas	33	36	69	11.18	20.3%
Number of employees who speak language(s) other than English at home	16	15	31	5.02	16.6%

\* Benchmarks from ABS Publication Basic Community Profile (SA) Cat No. 2001.0, 2006 census.

## Total Number of Employees With Disabilities (According to Commonwealth DDA Definition)

Male	Female	Total	% of Agency
7	7	14	2.3

## Types of Disability (Where Specified)

Disability	Male	Female	Total	% of Agency
Disability Requiring Workplace Adaptation	6	6	12	1.9
Physical	1	1	2	0.3
Intellectual				
Sensory	1	1	2	0.3
Psychological/ Psychiatric				

## Voluntary Flexible Working Arrangements by Gender

	Male	Female	Total
Purchased Leave	3	5	8
Flexitime	271	250	521
Compressed Weeks	12	7	19
Part-time	34	68	102
Job Share	0	4	4
Working from Home	0	2	2

*Note: Employees may be undertaking more than one type of Flexible Working Arrangement at the same time. In this way, the total is unlikely to add to 100%.*

## **Performance Development**

### **Documented Review of Individual Performance Management**

<b>Employees with ...</b>	<b>% Total Workforce</b>
A review within the past 12 months	75.17
A review older than 12 months	15.45
No review	9.38

### **Leadership and Management Training Expenditure**

<b>Training and Development</b>	<b>Total Cost</b>	<b>% of Total Salary Expenditure</b>
Total training and development expenditure	\$566 177	1.05%
Total leadership and management development expenditure	\$107 656	0.2%

### **Accredited Training Packages by Classification**

<b>Classification</b>	<b>Number of Accredited Training Packages</b>
ASO2	5
ASO3	11
ASO4	9
ASO5	13
ASO6	16
ASO7	8
ASO8	2
MAS3	3
OPS2	1
OPS3	1
PO1	3
PO2	5
PO3	5
PO4	1
TGO1	3
TGO2	6
Trainee	1

### **Equal Employment Opportunity Programs**

The Department does not manage any sector-wide equal opportunity employment programs on behalf of the public sector.

The Aboriginal Employment Register has been actively promoted and utilised throughout the Department during the year. About 10 percent of positions referred to the Aboriginal Employment Register have been filled through this mechanism.

The Department has employed four trainees, three graduates and one cadet during the year through the appropriate equal opportunity employment programs.

A Graduate Development Program and a Trainee Program have been run jointly with the Department for the Premier and Cabinet to provide networking, support and development.

A range of training has also been provided across the Department including disability awareness training and an Aboriginal cultural insights program.

An agency wide survey was undertaken in 2010 in an attempt to increase the number of people who self identified as having a disability or being from Aboriginal decent.

### **Gender Reporting**

The Department approved 'An Untapped Resource – Women in Leadership' strategy and action plan in October 2008. This document contained 36 actions, including both short-term initiatives and long-term strategic programs. A dedicated resource and additional funding were committed to the strategy, which realised a dramatic increase in confidence and support for women in leadership roles. At the commencement of the strategy, 15 percent of the Department's executive were women. At the peak, seven of the Department's 17 executives were women, with great momentum and enthusiasm supporting the diverse culture.

Executive has strongly supported the South Australian Strategic Plan target. This has included the support of an Executive Director as the Target 6.24 Sponsor, the Chief Executive addressing the senior women of the Department at a number of forums, and the inclusion of responsibilities and targets within executive performance agreements. Executive has also participated in a 'roundtable' discussion on women in leadership matters, based on research and findings obtained through actions contained in the strategy.

Flexible working arrangements have been identified as a key matter for women, especially when aspiring to higher-level positions. The Department has shown a great commitment to providing a flexible workplace, including the implementation of a number of policies which are unique to the Department. It has also provided a number of executives with flexible working arrangements, in particular part-time employment.

The Department has shown a strong commitment to providing a voice for women, through the establishment and support of a women's network (Wallaby Women's Leadership Action Network). This network has been in operation for about five years, and has been targeted at women in the ASO6 (and equivalent) and above classifications.

In June 2010, the Department launched a new additional women's network (Women's Interactive Network) that considers the needs and aspirations of women classified below ASO6. This ensures all women within the Department have the avenue and opportunity to be heard, and that collectively, the awareness of gender issues can increased and outcomes achieved for all.

### **Occupational Health, Safety and Injury Management**

The Department's Safety Management System comprises seven key OHSW&IM Programs:

- Safety culture and accountability;
- Emergency preparedness;
- Hazard management;
- Employee health and wellbeing;
- Training;
- Evaluation, reporting and continuous improvement; and
- Injury management.

Safety system activities occur within this framework and progress is reported against an OHSW&IM Strategic Plan. The majority of actions planned for 2009-10 were completed within allocated timeframes.

### **Consultative Arrangements**

The Department continues to consult with employees through its OHSW Committee and Health and Safety Representative network. The OHSW Committee met on six occasions during 2009 – 10.

Attendance by management representatives was 80% and employee representatives 70%. Actions of the committee have focussed on:

- Developing a policy for the OHSW management of contractors;
- Reviewing procedures for the management of aggression and critical incidents;
- Determining a tool to measure the risks inherent in Departmental positions and the training needs arising from these;
- Developing an overarching policy for field safety including a risk assessment tool for field work;
- Consolidating manual handling training with a preferred provider;
- Reviewing field clothing requirements to improve sun protection;
- Commencing development of an OHSW scorecard based on measurement of safety behaviours;
- Reviewing bushfire safety procedures to reflect changes to fire danger ratings;
- Continuing the management of document review and internal audit schedules; and
- Coordinating activities for Safe Work Month and of the Health Promotions sub-committee.

### **Safety in the Public Sector 2007- 10 Strategy (SIPS)**

The Department completed its implementation plan for the four key criteria of SIPS, comprising a range of actions with target implementation dates. The aim of this plan is to attain the objective: 'that the integrated Occupational Health Safety and Injury Management (OHSW&IM) system moves towards a culture of resilience through the continuous improvement process'. The following actions from the plan have been achieved:

### **Sustainable Commitment**

- The Chief Executive's ongoing commitment to occupational health and safety was reinforced through the inclusion of OHSW advice in his fortnightly newsletter *CE Connect*;
- As part of implementing a new Departmental intranet, OHSW content was reviewed and updated to improve communication with staff and access to key information;
- A review of the Health and Safety Representative and Contact Officer networks was conducted and measures put in place to increase representation and update training;
- Performance management discussions were conducted across the Department, including identification of training and development requirements to meet core OHSW competencies;
- Continuous improvements were made to the safety management system through the seven key OHSW&IM programs; and

- Regular networking occurred with the NRM boards OHSW coordinator, to provide ongoing support to this role.

#### **Financial Accountability**

- The Department's executive was provided with quarterly reports on achievement against SIPS targets, including costs associated with work related injuries;
- A rehabilitation and return to work coordinator was appointed and trained, as required by changes to the workers compensation legislation. This aimed to assist the Department to achieve timely and cost-effective return to work outcomes for injured workers;
- Funding was made available to support OHSW initiatives and training costs within each division, and managers were accountable for this expenditure; and
- The Department continued to invest in safety and wellbeing initiatives, such as communications systems (Safety log-in) for staff required to work in remote areas, health promotion initiatives, employee assistance services and the provision of trained bullying and harassment contact officers.

#### **Integrated Risk Management**

- A new procedure was developed to improve the safety of field officers by requiring the application of risk assessment processes to work undertaken in the field, and integrating key aspects of existing procedures into a single source document;
- An information package was compiled with safety measures to be implemented as a consequence of riverbank cracking and collapse. This was promoted to DWLBC staff and staff of other agencies which perform work along the River Murray;
- Risk registers were maintained to record and track OHSW risk factors including actions in place to mitigate risk. Integration with divisional strategic risk registers was being pursued;
- Corrective action registers were maintained to monitor implementation of control measures identified from site inspections, hazard reports and internal audits; and
- Emergency planning occurred to implement responses to a range of potential Departmental, site and work group related emergency situations.

#### **Rigorous Evaluation**

- Progress against the OHSW and Injury Management Strategic Plan was tracked and reported;
- Performance against the SIPS targets was monitored and reported on a quarterly basis to Executive;
- Internal auditing of the OHSW and Injury Management system was ongoing, through an annual audit schedule;
- A model to measure behavioural safety indicators was under development; and
- Policies and procedures were reviewed according to an internal review schedule.

#### **Responsible Officer Report**

A Responsible Officer report for 2009 was submitted to Work Cover in May 2010. No potential or alleged breaches of sections 58B and 58C of the *Workers Rehabilitation and Compensation Act 1986* were identified.

# Agency Gross<sup>1</sup> Workers Compensation Expenditure for 2009-2010 Compared with 2007-08

EXPENDITURE	2009-2010 \$	2008-09 \$	Variation \$+ (-)	% Change + (-)
Income Maintenance	93 768	84 890	+8 878	+10.46%
Lump Sum Settlements Redemptions - Sect.42	2 000	0	+2 000	
Lump Sum Settlements Permanent Disability – Sect. 43	0	8 274	- 8 274	
Medical/Hospital Costs combined	53 152	56 603	- 3 451	-6.09%
Other	2 576	3 460	- 884	-25.55%
<b>Total Claims Expenditure</b>	<b>151 496</b>	<b>153 227</b>	<b>- 1 731</b>	<b>- 1.12 %</b>

*Note: there was an overall small reduction of \$1,731 in comparison to the previous financial year due in main to reduced medical and lump sum settlement costs.*

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1 before 3rd party recovery

2 Information available from IDEAS RS/SIMS (for detailed advice on data extraction contact PSWD)

### Meeting Safety Performance Targets<sup>3</sup>

	Base: 2005-06	Performance: 12 months to end of June 2010 *			Final Target
	Numbers or %	Actual	Notional Quarterly Target**	Variation	Numbers or %
1. Workplace Fatalities	0	0	0	0	0
2. New Workplace Injury Claims	21	12	17	-5	17
3. New Workplace Injury Claims Frequency Rate	22.9	12.85	18.31	-5.46	18.3
4. Lost Time Injury Frequency Rate ***	6.5	6.42	5.23	1.19	5.23
5. New Psychological Injury Claims	0	1	0	1	0
6. Rehabilitation and Return to Work:					
6a. Early Assessment within 2 days	71.43%	83.33%	80%	3.33%	80% or more
6b. Early Intervention within 5 days	100%	100%	80%	20.00%	80% or more
6c. RTW within 5 business days	81%	63.64%	75%	-11.36%	75% or more
7. Claim Determination:					
7a. Claims determined in 10 business days	76.2%	58.33%	75%	-16.67%	75% or more
7b. Claims still to be determined after 3 months	0%	0.00%	3%	-3 %	3% or less
8. Income Maintenance Payments for Recent Injuries:					
2008/09 Injuries (at 24 months development)		\$20 073.15	\$14 697.87	\$5 375.29	Below previous 2 years average
2009/10 Injuries (at 12 months development)		\$6 982	\$12 525	\$-5 543	
* Except for Target 8, which is YTD. For Targets 5, 6c, 7a and 7b, performance is measured up to the previous quarter to allow reporting lag.					
** Based on cumulative reduction from base at a constant quarterly figure.					
***Lost Time Injury Frequency Rate Injury frequency rate for new lost-time injury/disease for each one million hours worked. This frequency rate is calculated for benchmarking and is used by the WorkCover Corporation.					
Lost Time Injury frequency rate (new claims): $\frac{\text{Number of new cases of lost-time injury/disease for year}}{1\,000\,000 \text{ Number of hours worked in the year}} \times 1$					

*Note: The Department met its targets for number and frequency rates of new workplace injury claims, although one psychological injury claim was received. Rehabilitation and Claims Determination targets were met, although the small number of claims may impact the statistical significance of these data.*

<sup>3</sup> Information available from IDEAS RS/SIMS (SIPS target report)



**Whistleblower Protection Act 1993**

The Department appointed two Responsible Officers under the Whistleblower Protection Act 1993 for a two-year period from 1 June 2010 until 1 June 2012.

There was one occasion on which public interest information was disclosed to a responsible officer of the agency under the *Whistleblowers Protection Act 1993*.

## Appendix B – Financial Performance

### INDEPENDENT AUDITOR'S REPORT



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Auditor-General's Department

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#### To the Chief Executive Department of Water, Land and Biodiversity Conservation

As required by section 31 of the *Public Finance and Audit Act 1987*, I have audited the accompanying financial statements of the Department of Water, Land and Biodiversity Conservation for the financial year ended 30 June 2010. The financial statements comprise:

- A Statement of Comprehensive Income
- A Statement of Financial Position
- A Statement of Changes in Equity
- A Statement of Cash Flows
- Disaggregated Disclosures - Expenses and Income
- Disaggregated Disclosures - Assets and Liabilities
- Notes to and forming part of the Financial Statements
- A Statement of Administered Comprehensive Income
- A Statement of Administered Financial Position
- A Statement of Administered Changes in Equity
- A Statement of Administered Cash Flows
- A Schedule of expenses and income attributable to administered activities
- A Schedule of Assets and Liabilities attributable to administered activities
- Notes to and forming part of the Administered Financial Statements
- A Certificate from the Chief Executive and the Director, Finance and Business Services.

#### The responsibility of the Chief Executive for the financial statements

The Chief Executive is responsible for the preparation and the fair presentation of the financial statements in accordance with the Treasurer's Instructions promulgated under the provisions of the *Public Finance and Audit Act 1987* and Australian Accounting Standards. This responsibility includes establishing and maintaining internal controls relevant to the preparation and fair presentation of the financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

#### Auditor's responsibility

My responsibility is to express an opinion on the financial statements based on the audit. The audit was conducted in accordance with the requirements of the *Public Finance and Audit Act 1987* and Australian Auditing Standards. The Auditing Standards require that the auditor complies with relevant ethical requirements relating to audit engagements and plans and performs the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made by the Chief Executive, as well as the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my auditor's opinion.

#### **Auditor's opinion**

In my opinion, the financial statements present fairly, in all material respects, the financial position of the Department of Water, Land and Biodiversity Conservation as at 30 June 2010, its financial performance and its cash flows for the year then ended in accordance with the Treasurer's Instructions promulgated under the provisions of the *Public Finance and Audit Act 1987* and Australian Accounting Standards.



**S O'Neill**  
**AUDITOR-GENERAL**  
24 September 2010

## Department of Water, Land and Biodiversity Conservation

### Certification of the Financial Statements

We certify that the attached general purpose financial statements for the Department of Water, Land and Biodiversity Conservation:

- comply with relevant Treasurer's Instructions issued under Section 41 of the *Public Finance and Audit Act 1987*, and relevant *Australian Accounting Standards*;
- are in accordance with the accounts and records of the department; and
- present a true and fair view of the financial position of the Department of Water, Land and Biodiversity Conservation as at 30 June 2010 and the results of its operations and cash flows for the financial year.

We certify that the internal controls employed by the Department of Water, Land and Biodiversity Conservation for the financial year over its financial reporting and its preparation of the general purpose financial statements have been effective throughout the reporting period.



Scott Ashby  
Chief Executive

22 September 2010



Danny De Cesare  
Director, Finance and Business  
Services

22 September 2010

**Department of Water, Land and Biodiversity Conservation**

**Statement of Comprehensive Income**

**For the Year Ended 30 June 2010**

	<b>Note</b>	<b>2010</b> \$'000	<b>2009</b> \$'000
<b>Expenses</b>			
Employee benefit expenses	5	<b>53 725</b>	47 673
Supplies and services	6	<b>58 620</b>	49 588
Depreciation and amortisation expense	7	<b>3 772</b>	2 868
Grants and subsidies	8	<b>139 320</b>	67 618
Water recovery / acquisition expenses	9	<b>7 124</b>	116 634
Other expenses	10	<b>296</b>	282
Net loss from disposal of non-current assets	14	<b>7</b>	-
<b>Total expenses</b>		<b>262 864</b>	284 663
<b>Income</b>			
Revenues from fees and charges	12	<b>11 581</b>	15 232
Interest revenues	13	<b>1 427</b>	568
Net gain from disposal of non-current assets	14	-	23
Grant revenues	15	<b>152 950</b>	71 802
Water recovery measures revenues	16	-	21 251
Other revenues	17	<b>1 680</b>	1 582
<b>Total income</b>		<b>167 638</b>	110 458
<b>Net cost of providing services</b>		<b>95 226</b>	174 205
<b>Revenues from / payments to SA Government</b>			
Revenues from SA Government	11	<b>113 059</b>	152 177
Payments to SA Government	11	<b>14 141</b>	-
<b>Total net revenues from SA Government</b>		<b>98 918</b>	152 177
<b>Net result</b>		<b>3 692</b>	(22 028)
<b>Other comprehensive income</b>			
Changes in property, plant and equipment asset revaluation surplus	21	<b>15 477</b>	10 437
Adjustments to accumulated surplus due to a change in accounting policy	21	-	(4 679)
<b>Total other comprehensive income</b>		<b>15 477</b>	5 758
<b>Total comprehensive result</b>		<b>19 169</b>	(16 270)

**The net result and comprehensive result are attributable to the SA Government as owner**

*The above statement should be read in conjunction with the accompanying notes*

**Department of Water, Land and Biodiversity Conservation**

**Statement of Financial Position**

**As at 30 June 2010**

	<b>Note</b>	<b>2010</b> <b>\$'000</b>	<b>2009</b> <b>\$'000</b>
<b>Current assets</b>			
Cash and cash equivalents	18	<b>28 899</b>	26 272
Receivables	19	<b>16 346</b>	21 504
Inventories	20	<b>1 708</b>	1 576
<b>Total current assets</b>		<b>46 953</b>	49 352
<b>Non-current assets</b>			
Property, plant and equipment	21	<b>97 355</b>	73 117
Intangible assets	22	<b>14 357</b>	7 038
<b>Total non-current assets</b>		<b>111 712</b>	80 155
<b>Total assets</b>		<b>158 665</b>	129 507
<b>Current liabilities</b>			
Payables	23	<b>20 017</b>	13 258
Employee benefits	24	<b>5 291</b>	4 840
Provisions	25	<b>146</b>	140
<b>Total current liabilities</b>		<b>25 454</b>	18 238
<b>Non-current liabilities</b>			
Payables	23	<b>1 072</b>	1 109
Employee benefits	24	<b>9 364</b>	9 356
Provisions	25	<b>473</b>	400
<b>Total non-current liabilities</b>		<b>10 909</b>	10 865
<b>Total liabilities</b>		<b>36 363</b>	29 103
<b>Net assets</b>		<b>122 302</b>	100 404
<b>Equity</b>			
Contributed capital	26	<b>10 893</b>	8 164
Asset revaluation surplus	26	<b>50 196</b>	34 719
Retained earnings	26	<b>61 213</b>	57 521
<b>Total equity</b>		<b>122 302</b>	100 404
The total equity is attributable to the SA Government as owner			
Unrecognised contractual commitments	27		
Contingent assets and liabilities	28		

*The above statement should be read in conjunction with the accompanying notes*

**Department of Water, Land and Biodiversity Conservation**

**Statement of Changes in Equity**

**For the Year Ended 30 June 2010**

	<b>Note No.</b>	<b>Contributed Capital</b>	<b>Asset Revaluation Surplus</b>	<b>Retained Earnings</b>	<b>Total</b>
		<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>
<b>Balance at 30 June 2008</b>		<b>8 164</b>	<b>24 282</b>	<b>85 396</b>	<b>117 842</b>
Change in accounting policy (Lower Murray Embankments)	21	-	-	(4 679)	(4 679)
<b>Restated balance at 30 June 2008</b>		<b>8 164</b>	<b>24 282</b>	<b>80 717</b>	<b>113 163</b>
Net result for 2008/2009		-	-	(22 028)	(22 028)
Gain on revaluation of property, plant and equipment during 2008/2009	21	-	10 437	-	10 437
<b>Total comprehensive result for 2008/2009</b>		<b>-</b>	<b>10 437</b>	<b>(22 028)</b>	<b>(11 591)</b>
<b>Balance at 30 June 2009</b>		<b>8 164</b>	<b>34 719</b>	<b>58 689</b>	<b>101 572</b>
Error correction - receivables	19	-	-	(1 168)	(1 168)
<b>Restated balance at 30 June 2009</b>		<b>8 164</b>	<b>34 719</b>	<b>57 521</b>	<b>100 404</b>
Net result for 2009/2010		-	-	3 692	3 692
Gain on revaluation of property, plant and equipment during 2009/2010		-	15 477	-	15 477
<b>Total comprehensive result for 2009/2010</b>		<b>-</b>	<b>15 477</b>	<b>3 692</b>	<b>19 169</b>
<b>Transactions with SA Government as owner</b>					
Equity contribution received		2 729	-	-	2 729
<b>Balance at 30 June 2010</b>		<b>10 893</b>	<b>50 196</b>	<b>61 213</b>	<b>122 302</b>

All changes in equity are attributable to the SA Government as owner

*The above statement should be read in conjunction with the accompanying notes*

**Department of Water, Land and Biodiversity Conservation**

**Statement of Cash Flows**

**For the Year Ended 30 June 2010**

	<b>Note</b>	<b>2010</b>	<b>2009</b>
		<b>\$'000</b>	<b>\$'000</b>
<b>Cash flows from operating activities</b>			
<b>Cash outflows</b>			
Employee benefit payments		(53 122)	(46 801)
Payments for supplies and services		(61 003)	(50 996)
Payments of grants and subsidies		(153 252)	(71 559)
Water recovery / acquisition expenses		(7 836)	(118 734)
GST paid to the Australian Taxation Office		(434)	(960)
Other payments		(321)	(335)
<b>Cash used in operations</b>		<b>(275 968)</b>	<b>(289 385)</b>
<b>Cash inflows</b>			
Fees and charges		17 928	3 730
Grant receipts		157 487	73 768
Interest received		1 393	577
Water recovery measures revenues		-	23 376
GST recovered from the Australian Taxation Office		18 151	7 456
Other receipts		1 848	1 558
<b>Cash generated from operations</b>		<b>196 807</b>	<b>110 465</b>
<b>Cash flows from SA Government</b>			
Receipts from SA Government:		113 059	152 177
Payments to SA Government:		(14 141)	-
<b>Cash generated from SA Government</b>		<b>98 918</b>	<b>152 177</b>
<b>Net cash provided by/(used in) operating activities</b>	30	<b>19 757</b>	<b>(26 743)</b>
<b>Cash flows from investing activities</b>			
<b>Cash outflows</b>			
Purchase of property, plant and equipment		(14 371)	(4 299)
Purchase of intangibles		(5 496)	(638)
<b>Cash used in investing activities</b>		<b>(19 867)</b>	<b>(4 937)</b>
<b>Cash inflows</b>			
Proceeds from sale of property, plant and equipment		8	27
<b>Cash generated from investing activities</b>		<b>8</b>	<b>27</b>
<b>Net cash used in investing activities</b>		<b>(19 859)</b>	<b>(4 910)</b>
<b>Cash flows from financing activities</b>			
<b>Cash inflows</b>			
Capital contributions from government		2 729	-
<b>Cash generated from financing activities</b>		<b>2 729</b>	<b>-</b>
<b>Net cash from financing activities</b>		<b>2 729</b>	<b>-</b>
<b>Net increase/(decrease) in cash and cash equivalents</b>		<b>2 627</b>	<b>(31 653)</b>
<b>Cash and cash equivalents at the beginning of the period</b>		<b>26 272</b>	<b>57 925</b>
<b>Cash and cash equivalents at the end of the period</b>	18,30	<b>28 899</b>	<b>26 272</b>

*The above statement should be read in conjunction with the accompanying notes*



**Department of Water, Land and Biodiversity Conservation**  
**Disaggregated disclosures - expenses and income**  
**For the Year Ended 30 June 2010 (Refer Note 4 for activity descriptions)**

	<i>NRM</i>		<i>NRM (River Murray)</i>		<i>Water Security</i>		<b>TOTAL</b>	
	<b>2010</b> \$'000	2009 \$'000	<b>2010</b> \$'000	2009 \$'000	<b>2010</b> \$'000	2009 \$'000	<b>2010</b> \$'000	2009 \$'000
<b>Expenses</b>								
Employee benefit expenses	<b>36 460</b>	34 186	<b>12 673</b>	11 583	<b>4 592</b>	1 904	<b>53 725</b>	47 673
Supplies and services	<b>35 300</b>	25 096	<b>15 965</b>	23 155	<b>7 355</b>	1 337	<b>58 620</b>	49 588
Depreciation and amortisation	<b>2 004</b>	1 606	<b>1 581</b>	1 233	<b>187</b>	29	<b>3 772</b>	2 868
Grants and subsidies	<b>9 824</b>	6 656	<b>27 187</b>	34 317	<b>102 309</b>	26 645	<b>139 320</b>	67 618
Water recovery / acquisition expenses	-	-	<b>7 124</b>	116 634	-	-	<b>7 124</b>	116 634
Other expenses	<b>172</b>	267	<b>50</b>	(7)	<b>74</b>	22	<b>296</b>	282
Net loss from disposal of non-current assets	-	-	-	-	<b>7</b>	-	<b>7</b>	-
<b>Total Expenses</b>	<b>83 760</b>	67 811	<b>64 580</b>	186 915	<b>114 524</b>	29 937	<b>262 864</b>	284 663
<b>Income</b>								
Revenues from fees and charges	<b>8 555</b>	9 544	<b>3 205</b>	5 327	<b>(179)</b>	361	<b>11 581</b>	15 232
Interest revenues	<b>219</b>	469	-	2	<b>1 208</b>	97	<b>1 427</b>	568
Net gain from disposal of non-current assets	-	23	-	-	-	-	-	23
Grant revenues	<b>25 123</b>	16 958	<b>16 221</b>	25 129	<b>111 606</b>	29 715	<b>152 950</b>	71 802
Water recovery measures revenues	-	-	-	21 251	-	-	-	21 251
Other revenues	<b>1 088</b>	1 216	<b>9</b>	365	<b>583</b>	1	<b>1 680</b>	1 582
<b>Total Income</b>	<b>34 985</b>	28 210	<b>19 435</b>	52 074	<b>113 218</b>	30 174	<b>167 638</b>	110 458
<b>Net cost of providing services</b>	<b>48 775</b>	39 601	<b>45 145</b>	134 841	<b>1 306</b>	(237)	<b>95 226</b>	174 205
<b>Revenues from / payments to SA Government</b>								
Revenues from SA Government	<b>2 896</b>	9 571	<b>39 314</b>	141 606	<b>70 849</b>	1 000	<b>113 059</b>	152 177
Payments to SA Government	-	-	<b>14 141</b>	-	-	-	<b>14 141</b>	-
Total Net revenues from SA Government	<b>2 896</b>	9 571	<b>25 173</b>	141 606	<b>70 849</b>	1 000	<b>98 918</b>	152 177
<b>Net result</b>	<b>(45 879)</b>	(30 030)	<b>(19 972)</b>	6 765	<b>69 543</b>	1 237	<b>3 692</b>	(22 028)

**Department of Water, Land and Biodiversity Conservation**  
**Disaggregated disclosures - assets and liabilities**  
**For the Year Ended 30 June 2010 (Refer Note 4 for activity descriptions)**

	<i>NRM</i>		<i>NRM (River Murray)</i>		<i>Water Security</i>		<i>TOTAL</i>	
	<b>2010</b> \$'000	2009 \$'000	<b>2010</b> \$'000	2009 \$'000	<b>2010</b> \$'000	2009 \$'000	<b>2010</b> \$'000	2009 \$'000
<b>Assets</b>								
Cash and cash equivalents	9 372	14 102	7 649	5 919	11 878	6 251	28 899	26 272
Receivables	7 193	8 851	8 113	11 552	1 040	1 101	16 346	21 504
Inventories	1 708	1 576	-	-	-	-	1 708	1 576
Property, plant and equipment	43 305	38 941	51 880	33 177	2 170	999	97 355	73 117
Intangible assets	8 594	3 826	3 765	3 212	1 998	-	14 357	7 038
<b>Total Assets</b>	<b>70 172</b>	<b>67 296</b>	<b>71 407</b>	<b>53 860</b>	<b>17 086</b>	<b>8 351</b>	<b>158 665</b>	<b>129 507</b>
<b>Liabilities</b>								
Payables	3 686	2 946	10 484	8 383	6 919	3 038	21 089	14 367
Employee benefits	10 734	10 398	3 368	3 262	553	536	14 655	14 196
Provisions	463	396	134	123	22	21	619	540
<b>Total Liabilities</b>	<b>14 883</b>	<b>13 740</b>	<b>13 986</b>	<b>11 768</b>	<b>7 494</b>	<b>3 595</b>	<b>36 363</b>	<b>29 103</b>

**Department of Water, Land and Biodiversity Conservation**  
**Notes to and forming part of the Financial Statements**  
**For the Year Ended 30 June 2010**

**1 Objectives of the Department of Water, Land and Biodiversity Conservation**

The objectives of the Department of Water, Land and Biodiversity Conservation (the department) are to ensure South Australia's natural resources are managed in ecologically sustainable ways that support the wellbeing of present and future generations.

To achieve the department objectives, it contributes to the following outcomes:

- (a) Integrated natural resource management that covers all of South Australia's natural resource elements.
- (b) Improved health and productivity of South Australia's biodiversity, water, land and marine resources.
- (c) Community, industry, governments and other stakeholders working together to achieve high quality natural resource management
- (d) A greater capability and willingness to invest in natural resource management to provide a sustained funding base.
- (e) Wise resource allocation that provides for the best environmental, social and economic outcomes.

**2 Summary of significant accounting policies**

**(a) Statement of compliance**

The financial statements are general purpose financial statements. The accounts have been prepared in accordance with relevant Australian accounting standards, Treasurer's instructions and accounting policy statements promulgated under the provisions of the *Public Finance and Audit Act 1987*.

Except for the amendments to Australian Accounting Standards, AASB 2009-12, which the department has early adopted, Australian accounting standards and interpretations that have recently been issued or amended but are not yet effective have not been adopted by the department for the reporting period ending 30 June 2010. These are outlined in Note 3.

**(b) Basis of preparation**

The preparation of the financial statements requires:

- the use of certain accounting estimates and requires management to exercise its judgement in the process of applying the department's accounting policies. The areas involving a higher degree of judgement or where assumptions and estimates are significant to the financial statements are outlined in the applicable notes;
- accounting policies are selected and applied in a manner which ensures that the resulting financial information satisfies the concepts of relevance and reliability, thereby ensuring that the substance of the underlying transactions or other events are
- compliance with accounting policy statements issued pursuant to section 41 of the *Public Finance and Audit Act 1987*. In the interest of public accountability and transparency the accounting policy statements require the following note disclosures, which have been included in this financial report:
  - (a) revenues, expenses, financial assets and liabilities where the counterparty/transaction is with an entity within the SA Government as at reporting date is classified according to their nature.
  - (b) expenses incurred as a result of engaging consultants (as reported in the Statement of Comprehensive Income);
  - (c) employee targeted voluntary separation package information;
  - (d) employees whose normal remuneration is \$100 000 or more (within \$10 000 bandwidths) and the aggregate of the remuneration paid or payable or otherwise made available, directly or indirectly by the entity to those employees; and
  - (e) board/committee member and remuneration information, where a board/committee member is entitled to receive income from membership other than a direct out-of-pocket reimbursement.

The department's Statement of Comprehensive Income, Statement of Financial Position and Statement of Changes in Equity have been prepared on an accrual basis and are in accordance with historical cost convention, except for certain assets that were valued in accordance with the valuation policy applicable.

The Statement of Cash Flows has been prepared on a cash basis.

The financial statements have been prepared based on a twelve month period and presented in Australian currency.

The accounting policies set out below have been applied in preparing the financial statements for the year ended 30 June 2010 and the comparative information presented.

**(c) Reporting entity**

The department is a government department of the State of South Australia, established pursuant to the *Public Sector Act 2009*. The department is an administrative unit acting on behalf of the Crown.

The financial statements and accompanying notes include all the controlled activities of the Department of Water, Land and Biodiversity Conservation.

Transactions and balances relating to administered resources are not recognised as departmental income, expenses, assets and liabilities. As administered items are significant in relation to the department's overall financial performance and position, they are disclosed in the administered financial statements (schedule of administered items) at the back of the controlled General Purpose Financial Statements. Except as otherwise disclosed, administered items are accounted for on the same basis and using the same accounting policies as for departmental items.

Transactions in relation to the Murray-Darling Basin Authority are reflected in both the department's controlled activities and also administered items.

**(d) Transferred functions**

The *Public Sector Management (Abolition of Administrative Unit and Public Service Restructure) Proclamation 2009* (dated 1 September 2009) declared that:

- the financial reporting, general accounting and taxation services transitioned to Shared Services SA, a business unit within the Department of Treasury and Finance, on 19 October 2009. This transition was approved by Cabinet on 8 December 2008.

**(e) Comparative information**

The presentation and classification of items in the financial statements are consistent with prior periods except where specific accounting standards and/or accounting policy statements have required a change.

Where presentation or classification of items in the financial statements have been amended, comparative figures have been adjusted to conform to changes in presentation or classification in these financial statements unless impracticable.

The restated comparative amounts do not replace the original financial statements for the preceding period.

**(f) Rounding**

All amounts in the financial statements and accompanying notes have been rounded to the nearest thousand dollars (\$'000).

**(g) Taxation**

The department is not subject to income tax. The department is liable for payroll tax, fringe benefits tax, goods and services tax (GST), emergency services levy, land tax equivalents and local government rate equivalents.

Income, expenses and assets are recognised net of the amount of GST except:

- when the GST incurred on a purchase of goods or services is not recoverable from the Australian Taxation Office, in which case the GST is recognised as part of the cost of acquisition of the asset or as part of the expense item applicable; and
- receivables and payables, which are stated with the amount of GST included.

The net amount of GST recoverable from, or payable to, the Australian Taxation Office is included as part of receivables or payables in the Statement of Financial Position.

Cash flows are included in the Statement of Cash Flows on a gross basis and the GST component of cash flows arising from investing and financing activities, which is recoverable from, or payable to, the Australian Taxation Office is classified as part of operating cash

Unrecognised contractual commitments and contingencies are disclosed net of the amount of GST recoverable from, or payable to the Australian Taxation Office. If GST is not payable to, or recoverable from the Australian Taxation Office, the commitments and contingencies are disclosed on a gross basis.

**(h) Events after the reporting period**

Adjustments are made to amounts recognised in the financial statements, where an event occurs after 30 June and before the date the financial statements are authorised for issue, where those events provide information about conditions that existed at 30 June.

Note disclosure is made about events between 30 June and the date the financial statements are authorised for issue where the events relate to a condition which arose after 30 June and which may have a material impact on the results of subsequent years.

**(i) Income**

Income is recognised to the extent that it is probable that the flow of economic benefits to the department will occur and can be reliably measured.

Income has been aggregated according to its nature and has not been offset unless required or permitted by a specific accounting standard, or where offsetting reflects the substance of the transaction or other event.

The notes accompanying the financial statements disclose income where the counterparty/transaction is with an entity within the SA Government as at the reporting date, classified according to their nature.

The department has attempted to identify all relevant transactions with SA Government entities / non-SA Government entities.

The following are specific recognition criteria:

*Fees and charges*

Revenues from fees and charges are derived from the provision of goods and services to other SA Government agencies and to the public. This revenue is recognised upon delivery of the service to the clients or by reference to the stage of completion.

*Grants received*

Grants are recognised as an asset and income when the department obtains control of the grants or obtains the right to receive the grants and the income recognition criteria are met (i.e. the amount can be reliably measured and the flow of resources is probable).

Generally, the department has obtained control or the right to receive for:

- Grants with unconditional stipulations - this will be when the agreement becomes enforceable i.e. the earlier of when the receiving entity has formally been advised that the grant (e.g. grant application) has been approved; agreement/contract is executed; and/or the grant is received.
- Grants with conditional stipulations - this will be when the enforceable stipulations specified in the agreement occur or are satisfied; that is income would be recognised for grants received or receivable under the agreement.

All grants received by the department have been grants with unconditional stipulations attached and have been recognised as an asset and income upon receipt.

#### *Resources received free of charge*

Resources received free of charge are recorded as revenue in the Statement of Comprehensive Income at their fair value. Contributions of services are recognised only when a fair value can be determined reliably and the services would be purchased if they had not been donated.

#### *Revenues from SA Government*

Appropriations for program funding are recognised as revenues when the department obtains control over the funding. Control over appropriations is normally obtained upon receipt.

Where money has been appropriated in the form of an equity contribution, the Treasurer has acquired a financial interest in the net assets of the department and the appropriation is recorded as contributed equity.

#### *Net gain on non-current assets*

Income from the disposal of non-current assets is recognised when the control of the asset has passed to the buyer and is determined by comparing proceeds with carrying amount. When revalued assets are sold, the revaluation surplus is transferred to retained earnings.

Any gain on disposal is recognised at the date control of the asset is passed to the buyer and is determined after deducting the cost of the asset from the proceeds at that time.

#### *Water recovery measures revenues*

Revenues from water recovery measures includes monies invested by other jurisdictions in South Australian water recovery measures under The Living Murray initiative together with funds from the temporary trading of water entitlements.

#### *Other revenues*

Other income includes revenues received from pastoral leases, donated assets and recouped operating expenses.

### **(j) Expenses**

Expenses are recognised to the extent that it is probable that the flow of economic benefits from the department will occur and can be reliably measured.

Expenses have been aggregated according to their nature and have not been offset unless required or permitted by a specific accounting standard, or where offsetting reflects the substance of the transaction or other event.

The notes accompanying the financial statements disclose expenses where the counterparty/transaction is with an entity within the SA Government as at the reporting date, classified according to their nature.

The department has attempted to identify all relevant transactions with SA Government entities / non-SA Government entities.

The following are specific recognition criteria:

#### *Employee benefit expenses*

Employee benefit expenses includes all costs related to employment including wages and salaries, non-monetary benefits and leave entitlements. These are recognised when incurred.

#### *Superannuation*

The amount charged to the Statement of Comprehensive Income represents the contributions made by the department to the superannuation plans in respect of current services of current departmental staff. The Department of Treasury and Finance centrally recognises the superannuation liability in the whole of government general purpose financial statements.

#### *Depreciation and amortisation*

All non-current assets, having a limited useful life, are systematically depreciated/amortised over their useful lives in a manner that reflects the consumption of their service potential. Amortisation is used in relation to intangible assets such as computer software, while depreciation is applied to tangible assets such as property, plant and equipment.

Assets' residual values, useful lives and amortisation methods are reviewed and adjusted if appropriate, on an annual basis.

Changes in the expected useful life or the expected pattern of consumption of future economic benefits embodied in the asset are accounted for prospectively by changing the time period or method, as appropriate, which is a change in accounting estimate.

The value of leasehold improvements is amortised over the estimated useful life of each improvement, or the unexpired period of the relevant lease, whichever is shorter.

Land is not depreciated as the item is considered to have a non-diminishing unlimited useful life.

Depreciation/amortisation is calculated on a straight line basis over the estimated useful life of the following classes of assets as follows:

<b>Class of asset</b>	<b>Useful life (years)</b>
Buildings	10-60
Leasehold improvements	Life of lease
Groundwater monitoring wells	2-100
Patawalonga seawater circulation and Barcoo Outlet	7-97
Surface water monitoring network	8-69
Waste disposal stations	22
Salinity disposal schemes	28-86
Lower Murray embankments	200
Plant and equipment	3-42
Regulators	10

#### *Grants and subsidies*

For grants and subsidies payable, the grant / subsidy will be recognised as a liability and expense when the department has a present obligation to pay the grant / subsidy and the expense recognition criteria are met.

All grants and subsidies paid by the department have been grants / subsidies with unconditional stipulations attached.

*Resources provided free of charge*

Resources provided free of charge are recorded as expenditure in the Statement of Comprehensive Income at their fair value; and in the expense line items to which they relate.

*Payments to SA Government*

Payments to the SA Government include the return of surplus cash pursuant to the cash alignment policy, taxation revenues and expiation fees received on behalf of the government and paid directly to the Consolidated Account.

Payments of \$14.141m were paid to the Consolidated Account in 2009-10 (2009: \$0m).

**(k) Current and non-current classification**

Assets and liabilities are characterised as either current or non-current in nature. Assets and liabilities that are sold, consumed or realised as part of the normal operating cycle even when they are not expected to be realised within twelve months after the reporting date have been classified as current assets or current liabilities. All other assets and liabilities are classified as non-current.

Where asset and liability line items combine amounts expected to be realised within twelve months and more than twelve months, the department has separately disclosed the amounts expected to be recovered or settled after more than twelve months.

**(l) Assets**

Assets have been classified according to their nature and have not been offset unless required or permitted by a specific accounting standard, or where offsetting reflects the substance of the transaction or other event.

Where an asset line item combines amounts expected to be settled within twelve months and more than twelve months, the department has separately disclosed the amounts expected to be recovered after more than twelve months.

The notes accompanying the financial statements disclose financial assets where the counterparty/transaction is with an entity within the SA Government as at the reporting date, classified according to their nature.

The department has attempted to identify all relevant transactions with SA Government entities / non-SA Government entities.

*Cash and cash equivalents*

Cash and cash equivalents in the Statement of Financial Position includes cash at bank and on hand and in other short-term, highly liquid investments with maturities of three months or less that are readily converted to cash and which are subject to insignificant risk of changes in value.

For the purposes of the Statement of Cash Flows, cash and cash equivalents consist of cash and cash equivalents as defined above.  
Cash is measured at nominal value.

*Receivables*

Receivables include amounts receivable from goods and services, GST input tax credits recoverable, and other accruals.

Receivables arise in the normal course of selling goods and services to other government agencies and to the public. Receivables are generally settled within 30 days after the issue of an invoice or the goods/services have been provided under a contractual arrangement.

Collectibility of receivables is reviewed on an ongoing basis. An allowance for doubtful debts is raised when there is objective evidence that the department will not be able to collect the debt. Bad debts are written off when identified.

*Inventories*

Inventories include goods and other property held either for sale or distribution at no or nominal cost in the ordinary course of business. It excludes depreciable assets.

Inventories held for distribution at no or nominal consideration are measured at cost and adjusted when applicable for any loss of service potential. Inventories held for sale are measured at the lower of cost or their net realisable value.

The department's inventories include plants and materials held by State Flora and the Branched Broomrape Eradication Program.

The amount of any inventory write-down to net realisable value or inventory losses are recognised in the Statement of Comprehensive Income as an expense in the period the write-down or loss occurred. Any write-down reversals are also recognised in the Statement of Comprehensive Income.

*Non-current assets*

Acquisition and recognition

Non-current assets are initially recorded at cost or at the value of any liabilities assumed, plus any incidental cost involved with the acquisition. Non-current assets are subsequently measured at fair value less accumulated depreciation.

Where assets are acquired at no cost, or minimal cost, they are recorded at fair value in the Statement of Financial Position. However, if the assets are acquired at no or nominal cost as part of a restructure of administrative arrangements then the assets are recognised at book value i.e. the amount recorded by the transferor public authority immediately prior to the restructure.

All non-current tangible assets with a value equal to or in excess of \$5 000 are capitalised.

Minor assets with an individual value of less than \$5 000 are expensed in the Statement of Comprehensive Income at the time of acquisition, with the exception of Groundwater Monitoring Wells and the Surface Water Monitoring Network due to the significant number and long useful lives of the assets contained within these classes. All assets for these classes have been recognised in the Statement of Financial Position regardless of their initial cost of acquisition.

Componentisation of complex assets is only performed when the complex asset's fair value at the time of acquisition is equal to or in excess of \$5 million for infrastructure assets and \$1 million for other assets.

Revaluation of non-current assets

All non-current tangible assets are valued at written down current cost (a proxy for fair value); and revaluation of non-current assets or group of assets is only performed when its fair value at the time of acquisition is greater than \$1 million and estimated useful life is greater than three years.

If at any time management considers that the carrying amount of an asset materially differs from its fair value, then the asset will be revalued regardless of when the last valuation took place. Non-current tangible assets that are acquired between revaluations are held at cost until the next valuation, when they are revalued to fair value. An independent valuation appraisal will be performed at least every five years.

Any revaluation increment is credited to the asset revaluation surplus, except to the extent that it reverses a revaluation decrease of the same asset class previously recognised as an expense, in which case the increase is recognised as income.

Any revaluation decrease is recognised as an expense, except to the extent that it offsets a previous revaluation increase for the same asset class, in which case the decrease is debited directly to the asset revaluation surplus to the extent of the credit balance existing in the revaluation surplus for that asset class.

In relation to the groundwater monitoring wells and surface water monitoring wells, accumulated depreciation as at the revaluation date has been eliminated against the gross carrying amounts of the assets and the net amounts are restated to the revalued amounts of the assets. For other property, plant and equipment assets that have been subject to an independent revaluation both the replacement cost and the associated accumulated depreciation have been presented on a gross basis. In 2009-10 assets relating to the Patowalunga seawater circulation and Barcoo outlet and the salinity disposal schemes were revalued and reported using the gross basis.

Upon disposal or derecognition, any revaluation surplus relating to that asset is transferred to retained earnings.

#### Impairment

All non-current tangible and intangible assets are tested for indication of impairment at each reporting date. Where there is an indication of impairment, the recoverable amount is estimated. An amount by which the asset's carrying amount exceeds the recoverable amount is recorded as an impairment loss.

For revalued assets, an impairment loss is offset against the asset revaluation surplus.

#### *Intangible assets*

An intangible asset is an identifiable non-monetary asset without physical substance. Intangible assets are measured at cost. Following initial recognition, intangible assets are carried at cost less any accumulated amortisation and any accumulated impairment losses.

The useful lives of intangible assets are assessed to be either finite or infinite. The department has intangible assets with finite and infinite lives.

No amortisation is applied to water entitlements (included in acquired intangible assets) as these have been assessed as having an infinite term of future economic benefits.

The amortisation period and the amortisation method for intangible assets is reviewed on an annual basis.

The acquisition of or internal development of software is capitalised only when the expenditure meets the definition criteria

All research and development costs that do not meet the capitalisation criteria outlined in AASB 138 *Intangible Assets* are expensed.

### **(m) Liabilities**

Liabilities have been classified according to their nature and have not been offset unless required or permitted by a specific accounting standard, or where offsetting reflects the substance of the transaction or other event.

Where a liability line item combines amounts expected to be settled within twelve months and more than twelve months, the department has separately disclosed the amounts expected to be settled after more than twelve months.

The notes accompanying the financial statements disclose financial liabilities where the counterparty/transaction is with an entity within the SA Government as at the reporting date, classified according to their nature.

The department has attempted to identify all relevant transactions with SA Government entities / non-SA Government entities.

#### *Payables*

Payables include creditors, accrued expenses and employment on-costs.

Creditors represent the amounts owing for goods and services received prior to the end of the reporting period that are unpaid at the end of the reporting period. Creditors include all unpaid invoices received relating to the normal operations of the department.

Accrued expenses represent goods and services provided by other parties during the period that are unpaid at the end of the reporting period and where an invoice has not been received.

All payables are measured at their nominal amount, are unsecured and are normally settled within 30 days from the date of the invoice or the date the invoice is first received.

Employee benefit on-costs include payroll tax, workers compensation and superannuation contributions in respect to outstanding liabilities for salaries and wages, long service leave and annual leave.

The department makes contributions to several State Government and externally managed superannuation schemes. These contributions are treated as an expense when they occur. There is no liability for payments to beneficiaries as they have been assumed by the respective superannuation schemes. The only liability outstanding at reporting date relates to any contributions due but not yet paid to the South Australian Superannuation Board and externally managed superannuation schemes.

### **(n) Leases**

The determination of whether an arrangement is or contains a lease is based on the substance of the arrangement.

The department has not entered into any finance leases, but has entered into non-cancellable operating lease arrangements for office accommodation where the lessor effectively retains all of the risks and benefits incidental to ownership of the items held under the operating lease.

#### *Operating Leases*

Operating lease payments are recognised as an expense in the Statement of Comprehensive Income on a straight-line basis over the lease term. The straight-line basis is representative of the pattern of benefits derived from the leased assets.



**(o) Financial guarantees**

The department has reviewed its financial guarantees and determined that there is no material liability to be recognised for financial guarantee contracts as at reporting date (there was no material liability recognised for financial guarantee contracts in the previous reporting period).

**(p) Employee benefits**

These benefits accrue for employees as a result of services provided up to the reporting date that remain unpaid. Long-term employee benefits are measured at present value and short-term employee benefits are measured at nominal amounts.

*Wages, salaries, annual leave and sick leave*

The liability for salaries and wages are measured as the amount unpaid at the reporting date at remuneration rates current at reporting date.

The annual leave liability is expected to be payable within twelve months and is measured at the undiscounted amount expected to be paid. In the unusual event where annual leave is payable later than 12 months, the liability will be measured at present value.

No provision has been made for sick leave as all sick leave is non-vesting and the average sick leave taken in future years by employees is estimated to be less than the annual entitlement of sick leave.

*Long service leave*

The liability for long service leave is recognised after an employee has completed 5.5 years of service. An actuarial assessment of long service leave undertaken by the Department of Treasury and Finance based on a significant sample of employees throughout the South Australian public sector determined that the liability measured using the short hand method was not materially different from the liability measured using the present value of expected future payments. This calculation is consistent with the department's experience of employee retention and leave taken.

The unconditional portion of the long service leave provision is classified as current as the department does not have an unconditional right to defer settlement of the liability for at least 12 months after reporting date. The unconditional portion of the long service leave relates to an unconditional legal entitlement to payment arising after ten years of service.

*Provisions*

Provisions are recognised when the department has a present obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

When the department expects some or all of a provision to be reimbursed, the reimbursement is recognised as a separate asset but only when the reimbursement is virtually certain. The expense relating to any provision is presented in the Statement of Comprehensive Income net of any reimbursement.

Provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at reporting date. If the effect of the time value of money is material, provisions are discounted for the time value of money and the risks specific to the liability.

**(q) Unrecognised contractual commitments and contingent assets and liabilities**

Commitments include operating, capital and outsourcing arrangements arising from contractual or statutory sources and are disclosed at their nominal value.

Contingent assets and contingent liabilities are not recognised in the Statement of Financial Position, but are disclosed by way of a note and, if quantifiable, are measured at nominal value.

Unrecognised contractual commitments and contingencies are disclosed net of the amount of GST recoverable from, or payable to the Australian Taxation Office. If GST is not payable to, or recoverable from the Australian Taxation Office, the commitments and contingencies are disclosed on a gross basis.

**(r) Interests in Joint Ventures**

*Cooperative Research Centres*

The department participates in a number of joint ventures through its interests in Cooperative Research Centres (CRCs).

While CRCs have the characteristics of joint ventures, they are not material to the department and no separate disclosure for 2010 has been made in accordance with the AASB 131 *Interest in Joint Ventures*.

A CRC is a research initiative of the Commonwealth Government established to pursue specific areas of research. One of the desired outcomes of a CRC is the creation of specific intellectual property with commercial value. There are usually a number of participants involved with CRCs, which also often have a significant research focus (eg Commonwealth Scientific and Industrial Research Organisation (CSIRO), universities and private sector bodies).

The funding of a CRC is usually coordinated through a Centre Agent who is appointed generally from one of the participating

Transactions between the CRCs and the department are accounted for in terms of general revenue and expenditure.

In 2009-10, the department contributed \$1.369m (2009: \$1.424m) in both cash and in-kind support for the following CRCs:

CRC for Future Farm Industries

CRC for Invasive Animals

CRC for Desert Knowledge

CRC for E-Water

*NRM Research Alliance*

The NRM Research Alliance (the Alliance) comprises all eight regional Natural Resources Management Boards, the NRM Council, South Australia's state NRM agencies (Department for Environment and Heritage, Department of Water, Land and Biodiversity Conservation, Department of Primary Industries and Resources), CSIRO and South Australia's three universities.

The relevant stakeholders have established the purpose of the Alliance to be to:

- foster and strengthen linkages between the users and providers of NRM science, technology and innovation;
- foster and strengthen collaboration between providers of NRM science, technology and innovation to increase capacity and capability;
- provide strategic advice on the adoption of NRM science, technology and innovation;



- attract and direct investment into NRM science, technology and innovation that will support improved NRM outcomes.

The Alliance's activities are administered through a deposit account held with the Treasurer.

In 2009-10, the department contributed \$198 000 (2009: \$133 000) in both cash and in-kind support to the NRM Research Alliance.

*Murray Darling Basin Authority*

The department administers the State's interest in the Murray-Darling Basin Authority (MDBA). These transactions are reflected in the Administered Statements. Note A10 of the Administered Statements refers to changes in accounting for the MDBA, which came into being on 15 December 2008.

### **3 New and revised accounting standards and policies**

The department did not voluntarily change any of its accounting policies during 2009-10.

Except for the amending Standard AASB 2009-12, which the department has early-adopted, the Australian accounting standards and interpretations that have recently been issued or amended but are not yet effective, have not been adopted by the department for the period ending 30 June 2010. The department has assessed the impact of the new and amended standards and interpretations and considers there will be no impact on the accounting policies or the financial statements of the department.

### **4 Activities of the department**

In achieving its objectives, the department provides a range of services classified into the following activities:

**Activity 1: Natural Resource Management**

The management of natural resources in South Australia, including the provision of advice and regulatory support for the Government and community; and facilitating the allocation and sustainable use of natural resources.

**Activity 2: Natural Resource Management (River Murray)**

The management of natural resources in the Murray-Darling Basin in South Australia, including the provision of advice and regulatory support for Government and community; and facilitating the allocation and sustainable use of natural resources.

**Activity 3: Water Security**

Coordinating and leading the development of water security policy across government.

The disaggregated disclosures schedules present expenses and income as well as assets and liabilities information attributable to each of the activities for the years ended 30 June 2010 and 30 June 2009.

**Department of Water, Land and Biodiversity Conservation**  
**Notes to and forming part of the Financial Statements**  
**For the Year Ended 30 June 2010**

**5 Employee benefit expenses**

	2010	2009
	\$'000	\$'000
Salaries and wages	37 114	35 423
Superannuation	4 504	4 609
Annual leave	3 172	3 361
Long service leave	2 186	1 715
Workers compensation	260	109
Targeted voluntary separation packages (refer below)	3 859	-
Board and committee fees	217	214
Payroll tax	2 413	2 242
<b>Total Employee benefit expenses</b>	<b>53 725</b>	<b>47 673</b>

**Targeted voluntary separation packages (TVSPs)**

	2010	2009
	\$'000	\$'000
Amount paid to these employees:		
TVSPs	3 859	-
Annual leave and long service leave paid during the reporting period	1 144	-
	5 003	-
Recovery from the Department of Treasury and Finance	3 635	-
Net cost to agency	1 368	-

Number of employees who received a TVSP during the reporting period: 29      -

**Employee remuneration**

The table below includes all employees who received remuneration of \$100 000 or more during the year. Remuneration of employees reflects all costs of employment including salaries and wages, superannuation contributions, fringe benefits tax and any other salary sacrifice benefits. The total remuneration received or receivable by these employees for the year was \$10.125m (2009: \$8.849m).

The number of employees who received remuneration of \$100 000 or more during the year, falls within the following bands:

	2010	2009
	No. of employees	No. of employees
\$100 000 – 109 999	38	30
\$110 000 – 119 999	16	13
\$120 000 – 129 999	5	5
\$130 000 – 139 999	2	5
\$150 000 – 159 999	2	2
\$160 000 – 169 999	3	1
\$170 000 – 179 999	-	2
\$180 000 – 189 999	2	3
\$190 000 – 199 999	3	1
\$200 000 – 209 999	-	2
\$220 000 – 229 999	1	2
\$230 000 – 239 999	-	1
\$240 000 – 249 999	1	-
\$250 000 – 259 999	1	-
\$290 000 – 299 999	-	1
\$300 000 – 309 999	1	-
\$310 000 – 319 999	1	-
\$340 000 – 349 999 *	1	-
<b>Total number of employees</b>	<b>77</b>	<b>68</b>

\* Reflects one employee who received a TVSP whose normal remuneration would have exceeded \$100 000 during the reporting period.

## 6 Supplies and services

	2010	2009
	\$'000	\$'000
Contractors	34 455	27 203
Service level determination	2 735	3 137
Accommodation	4 527	3 743
Vehicles	2 272	2 313
Computing	1 044	936
Travel and accommodation	1 389	1 465
Printing, publishing and stationery	784	608
Telephones	669	639
Chemical analysis	645	736
Minor plant and equipment purchases	2 015	1 830
Maps, photographs and plans	34	205
Consultancies	928	798
Materials and consumables	1 027	1 047
Equipment repairs and maintenance	365	612
Advertising, exhibition and promotion	2 430	543
Legal fees	419	430
Staff development	1 214	1 122
Other supplies and services	1 668	2 221
<b>Total Supplies and services</b>	<b>58 620</b>	<b>49 588</b>

### Consultants

The number and dollar amount of consultancies paid/payable (included in Consultancies expense shown above) fell within the following bands:

	2010	2009	2010	2009
	Number	Number	\$'000	\$'000
Below \$10 000	65	31	220	106
Between \$10 000 and \$50 000	20	14	295	312
Above \$50 000	4	5	413	380
<b>Total</b>	<b>89</b>	<b>50</b>	<b>928</b>	<b>798</b>

### Supplies and services provided by entities within the SA Government

The following supplies and services (included in the supplies and services expense amounts shown above) were provided by entities within the SA Government:

	2010	2009
	\$'000	\$'000
Contractors	9 925	14 596
Service level determination	2 724	3 137
Accommodation	3 553	3 044
Vehicles	1 840	1 886
Computing	36	48
Travel and accommodation	17	24
Printing, publishing and stationery	78	44
Telephones	436	416
Chemical analysis	48	27
Minor plant and equipment purchases	6	13
Maps, photographs and plans	1	110
Materials and consumables	9	8
Equipment repairs and maintenance	5	93
Advertising, exhibition and promotion	44	84
Legal fees	413	376
Staff development	30	55
Other supplies and services	470	691
<b>Total Supplies and services provided by entities within the SA Government</b>	<b>19 635</b>	<b>24 652</b>

<b>7 Depreciation and amortisation expense</b>	<b>2010</b>	<b>2009</b>
	<b>\$'000</b>	<b>\$'000</b>
Patawalonga seawater circulation and Barcoo outlet	355	355
Groundwater monitoring wells	584	584
Plant and equipment	508	526
Salinity disposal schemes	349	349
Surface water monitoring network	59	58
Waste disposal stations	108	63
Buildings	64	40
Lower Murray embankments	50	-
Regulators	813	-
Intangible assets	882	893
<b>Total Depreciation and amortisation expense</b>	<b>3 772</b>	<b>2 868</b>

<b>8 Grants and subsidies</b>	<b>2010</b>	<b>2009</b>
	<b>\$'000</b>	<b>\$'000</b>
Murray Darling Basin Authority	24 388	23 341
Department of Primary Industries and Fisheries (QLD) - red imported fire ants	585	426
Irrigators - Lower Murray reclaimed irrigation areas	320	1 121
Lake Eyre Basin - Environment Australia	-	241
River Murray E-Flows Fund	-	5 000
River Murray Improvement Program	1 411	1 146
Dog Fence Board - transfer of subsidy	463	438
Transfer to NRM Fund in respect of Appropriations allocated to the regional NRM Boards [1]	3 400	3 342
Murray Futures - Integrated Pipelines	87 028	23 740
Murray Futures - Lower Lakes, Coorong Adaptive Management	7 614	2 885
Murray Futures - River Industry Renewal	348	-
Rainwater Tank Rebate Scheme	-	2 773
Branched Broomrape Eradication	420	578
Drought emergency measures	1 505	-
Stormwater projects	7 035	-
Other grants	4 803	2 587
<b>Total Grants and subsidies</b>	<b>139 320</b>	<b>67 618</b>

[1] Excludes appropriations received by the department under Administered Items (\$400 000) in respect of the SA Arid Lands NRM Board.

#### Grants and subsidies paid/payable to entities within the SA Government

The following grants and subsidies (included in the grants and subsidies amounts shown above) were provided to entities within the SA Government:

	<b>2010</b>	<b>2009</b>
	<b>\$'000</b>	<b>\$'000</b>
River Murray Improvement Program	1 411	1 146
Dog Fence Board - transfer of subsidy	463	438
Transfer to NRM Fund in respect of Appropriations allocated to the regional NRM Boards [1]	3 400	3 342
Rainwater Tank Rebate Scheme (SA Water)	-	2 773
Branched Broomrape Eradication	415	578
Murray Futures - Integrated Pipelines	6 973	23 740
Murray Futures - Lower Lakes, Coorong Adaptive Management	7 614	2 885
Murray Futures - River Industry Renewal	348	-
Drought emergency measures	1 505	-
Stormwater Projects	1 654	-
Other grants	2 063	677
<b>Total Grants and subsidies paid/payable to entities within the SA Government</b>	<b>25 846</b>	<b>35 579</b>

<b>9 Water recovery / acquisition expenses</b>	<b>2010</b>	<b>2009</b>
	<b>\$'000</b>	<b>\$'000</b>
The Living Murray Water recovery projects	-	62 758
The Living Murray Water acquisition	-	10 500
Survival of Permanent Plantings	-	24 352
Environmental water acquisitions - Lower Lakes	7 124	17 536
Other water recovery projects	-	1 488
<b>Total Water recovery / acquisition expenses</b>	<b>7 124</b>	<b>116 634</b>

#### Water recovery / acquisition expenses paid/payable to entities within the SA Government

The following water recovery / acquisition expenses (included in the water recovery / acquisition amounts shown above) were provided to entities within the SA Government:

	<b>2010</b>	<b>2009</b>
	<b>\$'000</b>	<b>\$'000</b>
The Living Murray Water acquisition (PIRSA)	-	10 500
Survival of Permanent Plantings (SA Water)	-	24 352
Environmental water acquisitions - Lower Lakes (SA Water)	7 124	17 536
<b>Total Water recovery / acquisition expenses paid/payable to entities within the SA Government</b>	<b>7 124</b>	<b>52 388</b>

Refer to notes 11 and 16 for the funding sources supporting the above water recovery / acquisition expenses.

**10 Other expenses**

	2010	2009
	\$'000	\$'000
Bad and doubtful debts	5	(25)
External auditors remuneration	241	247
Sundry	50	60
<b>Total Other expenses</b>	<b>296</b>	<b>282</b>

**Other expenses paid/payable to entities within the SA Government**

The following other expenses (included in the other expenses amounts shown above) were paid/payable to entities within the SA Government:

	2010	2009
	\$'000	\$'000
External auditors remuneration	196	225
Sundry	25	26
<b>Total Other expenses paid/payable to entities within the SA Government</b>	<b>221</b>	<b>251</b>

**External auditors remuneration**

External auditors remuneration (included in the External auditors remuneration expense amount shown above) represents amounts paid/payable to the Auditor-General's Department for audit services. No other services were provided by the Auditor-General's Department.

	2010	2009
	\$'000	\$'000
Audit fees paid/payable to the Auditor-General's Department	196	225
<b>Total Audit fees paid/payable to the Auditor-General's Department</b>	<b>196</b>	<b>225</b>

**11 Revenues from / payments to SA Government**

	2010	2009
	\$'000	\$'000
<b>Revenues from SA Government</b>		
Appropriations from consolidated account pursuant to the <i>Appropriation Act 2008</i>	98 331	108 353
Appropriations under Contingencies	14 728	43 824
<b>Total revenues from SA Government</b>	<b>113 059</b>	<b>152 177</b>
<b>Payments to SA Government</b>		
Other payments to the Consolidated Account	14 141	-
<b>Total payments to SA Government</b>	<b>14 141</b>	<b>-</b>

The revenues from SA Government include \$22.1m (2009: \$25.3m) which was paid into the Save The River Murray Fund (the Fund), from the proceeds of the Save the River Murray levy which was introduced in the second quarter of the 2003-04 financial year. The Fund was established under section 100 of the *Waterworks Act 1932* (the Act) and monies credited to the Fund may only be applied to purposes set out in the Act. The total monies applied from the Fund were \$17.622m (2009: \$37.985m). A special purpose financial report is prepared for the Fund.

**12 Revenues from fees and charges**

	2010	2009
	\$'000	\$'000
Sales of goods and services	9 532	12 172
Taxation revenue	759	927
Fees, levies and licences	1 168	1 419
Service recoveries	122	714
<b>Total Revenues from fees and charges</b>	<b>11 581</b>	<b>15 232</b>

**Fees and charges received/receivable from entities within the SA Government**

The following fees and charges (included in the fees and charges revenues shown above) were received/receivable from entities within the SA Government:

	2010	2009
	\$'000	\$'000
Sales of goods and services	4 903	8 197
Fees, levies and licences	20	33
Service recoveries	112	682
<b>Total Fees and charges received/receivable from entities within the SA Government</b>	<b>5 035</b>	<b>8 912</b>

**13 Interest revenues**

	2010	2009
	\$'000	\$'000
Interest revenues from entities within the SA Government	1 426	564
Other interest	1	4
<b>Total Interest revenues</b>	<b>1 427</b>	<b>568</b>

#### 14 Net gain from disposal of non-current assets

	2010	2009
	\$'000	\$'000
<b>Waste disposal stations</b>		
Proceeds from disposal	-	-
Less: Net book value of assets disposed	11	-
Net loss from disposal	(11)	-
<b>Plant and equipment</b>		
Proceeds from disposal	8	27
Less: Net book value of assets disposed	4	4
Net gain from disposal	4	23
<b>Total Assets</b>		
Proceeds from disposal	8	27
Less: Net book value of assets disposed	15	4
<b>Total Net (loss) / gain from disposal of non-current assets</b>	<b>(7)</b>	<b>23</b>

#### 15 Grant revenues

	2010	2009
	\$'000	\$'000
<b>(a) Grant revenues from the Commonwealth</b>		
Department of Agriculture Fisheries and Forestry - Branched Broomrape Eradication Program	1 230	1 168
National Water Commission - National Water Initiative - Mount Lofty Ranges	-	3 745
National Water Commission - National Water Initiative - Implementation	5 516	2 979
National Water Commission - National Water Initiative - South East	904	1 602
National Water Commission - National Water Initiative - Fractured Rock	247	622
National Water Commission - Restoring Flows to the Wetlands in the Upper South East of SA	5 055	761
Bureau of Meteorology	2 763	1 822
Murray Darling Basin Authority - Goolwa Channel	5 803	863
Murray Futures - Lower Lakes, Coorong Adaptive Management	12 539	3 000
Murray Futures - Riverine Recovery	2 025	675
Murray Futures - Integrated Pipeline	91 438	25 240
Murray Futures - River Industry Renewal	348	-
Lake Albert Water Level Management project (Murray Darling Basin Authority)	-	11 212
The Living Murray	-	7 313
Stormwater Project Administration	5 110	-
Environmental Works and Measures Projects	612	-
Other	670	151
<b>Total grant revenues from the Commonwealth</b>	<b>134 260</b>	<b>61 153</b>
<b>(b) Grant revenues from SA Government</b>		
Department for Environment and Heritage	-	34
South East NRM Board	-	834
South Australian Arid Lands NRM Board	-	145
Native Vegetation Fund	-	368
NRM Alliance	-	499
SA Water Corporation - Murray Futures Executive	-	800
State NRM Program	5 893	2 397
Environmental Works and Measures Projects	106	-
Survival of Permanent Plantings	1 141	-
Lake Albert Water Level Management project (Department for Environment and Heritage)	1 540	-
Other	871	226
<b>Total grant revenues from SA Government</b>	<b>9 551</b>	<b>5 303</b>
<b>(c) Grant revenues from National Action Plan</b>		
Grant revenues from State National Action Plan unmatched		
Administration Contribution	-	415
Other	-	254
<b>Total grant revenues from State National Action Plan unmatched</b>	<b>-</b>	<b>669</b>
Grant revenues from National Action Plan Joint Commonwealth and State Funding		
Lower Murray Reclaimed Irrigation Areas	-	1 108
Salt Interception Scheme - Regional Disposal Strategy	703	200
Salt Interception Scheme - Murtho	195	91
Salt Interception Scheme - Chowilla	-	332
Salt Interception Scheme - Other	84	166
Upper South East Salinity Accession - (Centre for Natural Resource Management)	-	65
Centre for Natural Resource Management	-	126
Imagery Baseline Data NRM Planning, Monitoring and Evaluation	-	892
National Action Plan Drawdown (Upper South East Program)	6 390	-
Other	597	119
<b>Total grant revenues from National Action Plan Joint Commonwealth and State Funding</b>	<b>7 969</b>	<b>3 099</b>
<b>Total grant revenues from National Action Plan</b>	<b>7 969</b>	<b>3 768</b>

<b>(d) Grant revenues from Natural Heritage Trust</b>		
Administration of National Landcare Community Support	-	60
Other	-	170
<b>Total grant revenues from Natural Heritage Trust</b>	<b>-</b>	<b>230</b>

<b>(e) Grant revenues from other entities</b>		
Branched Broomrape Eradication Program (Other State Governments)	1 021	970
Cooperative Research Centre Flora Search	-	75
Sundry grants and contributions	149	303
<b>Total grant revenues from other entities</b>	<b>1 170</b>	<b>1 348</b>
<b>Total Grant revenues</b>	<b>152 950</b>	<b>71 802</b>

## 16 Water recovery measures revenues

	2010	2009
	\$'000	\$'000
The Living Murray	-	21 251
<b>Total Water recovery measures revenues</b>	<b>-</b>	<b>21 251</b>

Whilst no funding was received in relation to The Living Murray initiative in 2010, \$7.313m was received from the Commonwealth government in 2009.

Revenues received in 2009 pursuant to The Living Murray constituted monies invested by other jurisdictions in South Australian water recovery measures under The Living Murray initiative. These monies, together with funds generated through the temporary trade of water entitlements, were paid into a separate deposit account held with the Treasurer.

## 17 Other revenues

	2010	2009
	\$'000	\$'000
Operating expenses recouped	300	48
Pastoral leases	1 015	904
Donated assets	-	166
Other revenue	365	464
<b>Total Other revenues</b>	<b>1 680</b>	<b>1 582</b>

### Other revenues received/receivable from entities within the SA Government

The following other revenues (included in the other revenues shown above) were received/receivable from entities within the SA Government:

	2010	2009
	\$'000	\$'000
Operating expenses recouped	243	30
Donated assets	-	166
Other revenue	86	312
<b>Total Other revenues received/receivable from entities within the SA Government</b>	<b>329</b>	<b>508</b>

## 18 Cash and cash equivalents

	2010	2009
	\$'000	\$'000
Deposits with the Treasurer	28 860	26 232
Cash on hand and imprest accounts	31	32
Other	8	8
<b>Total Cash and cash equivalents</b>	<b>28 899</b>	<b>26 272</b>

### **Deposits with the Treasurer**

Includes funds held in the *Accrual Appropriation Excess Funds Account*. The balance of these funds is not available for general use and can only be used in accordance with the Treasurer's or Under-Treasurer's approval.

### **Interest rate risk**

Cash on hand is non-interest bearing. Deposits at call and with the Treasurer earn a floating interest rate, based on daily bank deposit rates. The carrying amount of cash and cash equivalents represents fair value.

## 19 Receivables

	2010	2009
	\$'000	\$'000
<b>Current</b>		
Receivables <sup>[1]</sup>	13 084	18 273
Less Allowance for doubtful debts	(43)	(38)
	<b>13 041</b>	<b>18 235</b>
Accrued interest	95	61
GST receivables	3 189	3 187
Workers compensation recoveries	21	21
<b>Total Current receivables</b>	<b>16 346</b>	<b>21 504</b>

### **Receivables from entities within the SA Government**

The following receivables (included in the receivables shown above) were received/receivable from entities within the SA Government:

	2010	2009
	\$'000	\$'000
Receivables	465	4 312
Less Allowance for doubtful debts	-	-
	<b>465</b>	<b>4 312</b>
Accrued interest	95	61
Workers compensation recoveries	21	21
<b>Total Receivables from entities within the SA Government</b>	<b>581</b>	<b>4 394</b>

<sup>[1]</sup> Following a change in Commonwealth funding arrangements, effective from January 2009, the department has identified an adjustment required to the carrying value of a receivable at 30 June 2009. In accordance with AASB 108 the department has recognised this adjustment as a prior period error. The effect of the adjustment was to reduce the balance of receivables and retained earnings at 1 July 2009 by \$1.16 million.

### **Movement in the allowance for doubtful debts**

The allowance for doubtful debts (allowance for impairment loss) is recognised when there is objective evidence (i.e. calculated on past experience and current and expected changes in client credit rating) that a receivable is impaired. An allowance for impairment loss has been recognised in 'other expenses' in the Statement of Comprehensive Income for specific debtors and debtors assessed on a collective basis for which such evidence exists. The allowance for doubtful debts was increased by \$5 000 in 2009-10.

### **Interest rate and credit risk**

Receivables are raised for all goods and services provided for which payment has not been received. Receivables are normally settled within 30 days. Receivables, prepayments and accrued revenues are non-interest bearing. Other than as recognised in the allowance for doubtful debts, it is not anticipated that counterparties will fail to discharge their obligations. The carrying amount of receivables approximates net fair value due to being receivable on demand. There is no concentration of credit risk.

## 20 Inventories

	2010	2009
	\$'000	\$'000
Materials at cost	1 708	1 576
<b>Total Inventories</b>	<b>1 708</b>	<b>1 576</b>

### **Cost of inventories**

The cost of inventories recognised as an expense for raw materials and consumables was \$1.389m. The net change in inventories held for distribution and other inventory for the period is \$110 400 and \$21 400 respectively.



## 21 Property, plant and equipment

	2010 \$'000	2009 \$'000
<b>Land</b>		
Independent valuation <sup>(ii)</sup>	2 115	2 115
At cost <sup>(i)</sup>	166	166
<b>Total Land</b>	<b>2 281</b>	<b>2 281</b>
<b>Buildings and improvements</b>		
Independent valuation <sup>(ii)</sup>	3 079	3 079
At cost <sup>(i)</sup>	125	125
Less Accumulated depreciation	(1 784)	(1 720)
<b>Total Buildings and improvements</b>	<b>1 420</b>	<b>1 484</b>
<b>Groundwater monitoring wells</b>		
Independent valuation <sup>(ii)</sup>	17 924	17 924
At cost <sup>(i)</sup>	221	221
Less Accumulated depreciation	(2 424)	(1 840)
<b>Total Groundwater monitoring wells</b>	<b>15 721</b>	<b>16 305</b>
<b>Surface water monitoring network</b>		
Independent valuation <sup>(ii)</sup>	2 474	2 474
Less Accumulated depreciation	(175)	(116)
<b>Total Surface water monitoring network</b>	<b>2 299</b>	<b>2 358</b>
<b>Waste disposal stations</b>		
Independent valuation <sup>(ii)</sup>	5 210	5 210
At cost (deemed fair value) <sup>(i)</sup>	511	215
Less Accumulated depreciation	(2 994)	(2 986)
<b>Total Waste disposal stations</b>	<b>2 727</b>	<b>2 439</b>
<b>Patawalonga seawater circulation and Barcoo outlet</b>		
Independent valuation <sup>(ii)</sup>	30 774	20 545
At cost (deemed fair value) <sup>(i)</sup>	528	31
Less Accumulated depreciation	(6 681)	(1 586)
<b>Total Patawalonga seawater circulation and Barcoo outlet</b>	<b>24 621</b>	<b>18 990</b>
<b>Salinity disposal schemes</b>		
Independent valuation <sup>(ii)</sup>	44 972	20 031
Less Accumulated depreciation	(16 661)	(1 395)
<b>Total Salinity disposal schemes</b>	<b>28 311</b>	<b>18 636</b>
<b>Lower Murray embankments</b>		
Independent valuation <sup>(ii)</sup>	10 062	10 062
Less Accumulated depreciation	(4 729)	(4 679)
<b>Total Lower Murray embankments</b>	<b>5 333</b>	<b>5 383</b>
<b>Regulators</b>		
At cost (deemed fair value) <sup>(i)</sup>	10 167	-
Less Accumulated depreciation	(813)	-
<b>Total Regulators</b>	<b>9 354</b>	<b>-</b>
<b>Plant and equipment</b>		
At cost (deemed fair value) <sup>(i)</sup>	7 163	6 636
Less Accumulated depreciation	(5 617)	(5 125)
<b>Total Plant and equipment</b>	<b>1 546</b>	<b>1 511</b>
<b>Capital works in progress</b>		
Capital works in progress <sup>(i)</sup>	3 742	3 730
<b>Total Capital works in progress</b>	<b>3 742</b>	<b>3 730</b>
<b>Total Property, plant and equipment</b>	<b>97 355</b>	<b>73,117</b>

### Carrying amounts of property, plant and equipment

Classes of property, plant and equipment are valued as follows:

i At cost (acquisition cost)

This class includes one or more items that have an acquisition cost. All assets within this class are temporarily held at cost pending revaluation that occurs no later than five years from acquisition date.

ii Independent valuation

These assets are valued separately by independent professional valuers.

## Asset Revaluations

The Patawalonga seawater circulation and Barcoo outlet and salinity disposal schemes were independently revalued during the reporting period. The following table details all revaluations undertaken in recent years for each class of asset.

Class of Asset	Date of Last Independent Valuation	Name of Valuer
Land and buildings	30 June 2009	Southwick Goodyear Pty Ltd
Groundwater monitoring wells	30 June 2006	GHD Pty Ltd
Surface water monitoring network	30 June 2007	Valcorp Pty Ltd
Waste disposal stations	30 June 2009	Valcorp Pty Ltd
Patawalonga seawater circulation and Barcoo outlet	30 June 2010	Currie and Brown Pty Ltd
Salinity disposal schemes	30 June 2010	Currie and Brown Pty Ltd
Lower Murray embankments	30 June 2009	Valcorp Pty Ltd
Plant and equipment*	-	-

\* Plant and equipment have been brought to account at cost or at officers' valuation for initial recognition purposes.

## Movement reconciliation of property, plant and equipment

	Land	Buildings	Ground-water Monitoring Wells	Surface Water Monitoring Network	Waste Disposal Stations	Patawalonga Seawater Circulation	Salinity Disposal Schemes	Lower Murray Embankments	Regulators	Plant and Equipment	Capital work in progress	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>2010</b>												
Carrying amount at the start of period	2 281	1 484	16 305	2 358	2 439	18 990	18 636	5 383	-	1 511	3 730	73 117
Additions	-	-	-	-	443	497	-	-	9 434	437	3 560	14 371
Transfers to/(from) capital work in progress	-	-	-	-	-	-	-	-	733	110	(843)	-
Transfers to intangible assets	-	-	-	-	-	-	-	-	-	-	(2 705)	(2 705)
Depreciation expense	-	(64)	(584)	(59)	(108)	(355)	(349)	(50)	(813)	(508)	-	(2 890)
Net revaluation increment/(decrement)	-	-	-	-	(36)	5 489	10 024	-	-	-	-	15 477
Disposals	-	-	-	-	(11)	-	-	-	-	(4)	-	(15)
Carrying amount at the end of period	2 281	1 420	15 721	2 299	2 727	24 621	28 311	5 333	9 354	1 546	3 742	97 355
<b>2009</b>												
Carrying amount at the start of period	3 475	883	16 889	2 416	1 068	19 345	18 985	-	-	1 615	1 745	66 421
Transfers between classes	(2 245)	126	-	-	-	-	-	2 244	-	72	(197)	-
Additions	-	-	-	-	215	-	-	-	-	354	3 730	4 299
Transfers to/(from) Capital WIP	166	-	-	-	-	-	-	-	-	-	-	166
Transfers to/(from) Intangibles	-	-	-	-	-	-	-	-	-	-	(1 548)	(1 548)
Depreciation expense	-	(40)	(584)	(58)	(63)	(355)	(349)	(4 679)	-	(526)	-	(6 654)
Net revaluation increment/(decrement)	885	515	-	-	1 219	-	-	7 818	-	-	-	10 437
Disposals	-	-	-	-	-	-	-	-	-	(4)	-	(4)
Carrying amount at the end of period	2 281	1 484	16 305	2 358	2 439	18 990	18 636	5 383	-	1 511	3 730	73 117

## Assets Not Recognised

### Acquisition of Water Licences for Environmental Flows

While the department recognises certain water licences controlled by the Minister for the River Murray as intangible assets at 30 June 2010 (refer to Note 22), the acquisition and transfer of water licences for environmental purposes is generally expensed when such expenditure is incurred (refer previous comments here above).

The decision not to capitalise these expenditures is linked to the provisions of the Intergovernmental Agreement (the Agreement) signed in June 2004, to which the state of South Australia is a party.

The Agreement gives effect to a decision by the southern Murray-Darling Basin jurisdictions to commit \$500 million over five years to address water over-allocation in the Murray-Darling Basin with an initial focus on achieving specific environmental outcomes for six significant ecological assets along the River Murray.

The Living Murray Business Plan is provided for under Clause 13 of the Agreement and describes how the actions and milestones in the Agreement are to be achieved.

The department is acting to meet the agreed milestones and has acquired water licences for transfer to the eligible measures register and subsequently to the environmental measures register, consistent with this objective.

The transactions pertaining to the acquisition of water licences and subsequent application of these licences, together with other financial investments in eligible and environmental measures, have been expensed on the basis that the future economic benefits attaching to these transactions are not expected to flow directly to the department. This excludes water licences that have been subject to temporary trading during the reporting period.

### Upper South East Drainage Scheme

The department receives funding under the National Action Plan for Salinity and Water Quality to construct drainage assets for the Upper South Eastern Region of South Australia. On completion these assets are managed and maintained by the South Eastern Water Conservation and Drainage Board.

The future economic benefits that will be derived from these assets are expected to be received by the South Eastern Water Conservation and Drainage Board and not the department. As a consequence the amounts expended on these assets are recognised in the department's Statement of Comprehensive Income in the form of employee expenditures, operating costs and grant payments and are not capitalised.

#### *Salt Interception Schemes*

The department receives funding from the National Action Plan for Salinity and Water Quality, and contributes to the construction of the salt interception assets for the Bookpurnong and Loxton schemes. Upon completion these assets are managed and maintained by the Murray Darling Basin Authority, and the department funds its share of these costs.

The future economic benefits that will be derived from these assets are expected to be received by the Murray Darling Basin Authority and not the department. As a consequence the amounts expended on these assets are not capitalised, but are recognised in the department's Statement of Comprehensive Income in the form of employee expenditures, operating costs and grant payments.

## 22 Intangible assets

	2010 \$'000	2009 \$'000
<b>Internally developed intangible assets</b>		
Internally developed computer software - at cost (deemed fair value)	14 171	6 230
Less accumulated amortisation	(2 815)	(2 004)
<b>Total: Internally developed intangible assets</b>	<b>11 356</b>	<b>4 226</b>
<b>Externally acquired intangible assets</b>		
Computer and water licences	3 292	3 033
Less accumulated amortisation	(291)	(221)
<b>Total Externally acquired intangible assets</b>	<b>3 001</b>	<b>2 812</b>
<b>Total Intangible assets</b>	<b>14 357</b>	<b>7 038</b>

#### *Intangible Assets*

The department recognises the following intangible assets:

- *Water Licences – acquired in the market*

While the acquisition and transfer of water licences for environmental purposes are generally expensed when such expenditure is incurred, there may be points during which the nature of such assets is transformed due to policy decisions. Ultimately these licences will be applied for environmental purposes and the accounting treatment will be to expense the purchases.

- *Water licences – acquired at no cost*

An intangible asset for water licences has been recognised. The asset was initially acquired for nil consideration prior to 1 July 2005. A reliable fair value at the time of acquisition was not available. The assets were recognised for the first time at fair value as at 30 June 2006. Fair value was determined by observing prices in the water trading market as at 30 June 2006.

- *Intangible Assets (Computer software)*

The internal development of software is capitalised by the Department when the expenditure meets the definition and recognition criteria of an intangible asset outlined in AASB 138 and when the amount of expenditure is greater than or equal to \$10 000, in accordance with APF III Asset Accounting Framework APS 2.15. All research and development costs that do not meet the capitalisation criteria outlined in AASB 138 are expensed. Subsequent expenditure on intangible assets has not been capitalised. The department has capitalised the internal development of software for the Water Information and Licensing and Management Application system (WILMA). In addition, certain costs have been capitalised in respect of the Natural Resources Management Information System and other software specific to the department's core activities. Some intangibles are currently included in work in progress.

#### *Intangible asset movement reconciliation schedule*

	Internally Developed \$'000	Externally Acquired \$'000	Total \$'000
<b>2010</b>			
Carrying amount at the start of the period	4 226	2 812	7 038
Additions - acquisitions	5 386	110	5 496
Additions - transfers from capital work in progress	2 555	150	2 705
Depreciation expense	(811)	(71)	(882)
Carrying amount at the end of the period	11 356	3 001	14 357
<b>2009</b>			
Carrying amount at the start of the period	2 933	2 812	5 745
Additions - acquisitions	576	62	638
Additions - Transfers to/(from) capital work in progress	1 548	-	1 548
Depreciation expense	(831)	(62)	(893)
Carrying amount at the end of the period	4 226	2 812	7 038

## 23 Payables

	2010 \$'000	2009 \$'000
<b>Current</b>		
Creditors and accrued expenses	19 185	12 528
Employee benefit on-costs	832	730
<b>Total Current payables</b>	<b>20 017</b>	<b>13 258</b>

#### **Current payables to entities within the SA Government**

The following payables (included in the payables shown above) were payable to entities within the SA Government:

	2010 \$'000	2009 \$'000
Creditors and accrued expenses	6 915	7 284
Employee benefit on-costs	371	377
Total Current payables to entities within the SA Government	7 286	7 661

**Non-current**

	2010	2009
	\$'000	\$'000
Employee benefit on-costs	1 072	1 109
<b>Total Non-current payables</b>	<b>1 072</b>	<b>1 109</b>

**Non-current payables to entities within the SA Government**

The following payables (included in the payables shown above) were payable to entities within the SA Government:

	2010	2009
	\$'000	\$'000
Employee benefit on-costs	504	498
<b>Total Non-current payables to entities within the SA Government</b>	<b>504</b>	<b>498</b>

**Interest rate and credit risk**

Creditors and accruals are raised for all amounts due but unpaid. Sundry creditors are normally settled within 30 days. Employment on-costs are settled when the respective employee benefit that they relate to is discharged. All payables are non-interest bearing. The carrying amount of payables represents fair value due to the amounts being payable on demand.

**24 Employee benefits**

	2010	2009
	\$'000	\$'000
<b>Current</b>		
Accrued salaries and wages	1 504	1 271
Annual leave	3 028	3 077
Long service leave	759	492
<b>Total Current employee benefits</b>	<b>5 291</b>	<b>4 840</b>
<b>Non-current</b>		
Long service leave	9 364	9 356
<b>Total Non-current employee benefits</b>	<b>9 364</b>	<b>9 356</b>

As a result of an actuarial assessment performed by the Department of Treasury and Finance, the benchmark for the measurement of the long service leave liability has changed from the 2009 benchmark of 6.5 years to 5.5 years. The net financial effect of the changes in the current financial year is an increase in the long service liability of \$406 000 and employee benefit expense of \$406 000.

**25 Provisions**

	2010	2009
	\$'000	\$'000
<b>Current</b>		
Provision for workers compensation	146	140
<b>Total Current provisions</b>	<b>146</b>	<b>140</b>
<b>Non-current</b>		
Provision for workers compensation	473	400
<b>Total Non-current provisions</b>	<b>473</b>	<b>400</b>
<b>Provision movement</b>		
Carrying amount at the beginning of the period	540	588
Additional provisions recognised	236	109
Amounts used	(157)	(157)
Carrying amount at the end of the period	619	540

A liability has been reported to reflect unsettled workers compensation claims. The workers compensation provision is based on an actuarial assessment performed by the Public Sector Workforce Division of the Department of the Premier and Cabinet.

**26 Equity**

	2010	2009
	\$'000	\$'000
Contributed capital	10 893	8 164
Retained earnings	61 213	57 521
Asset revaluation surplus	50 196	34 719
<b>Total Equity</b>	<b>122 302</b>	<b>100 404</b>

## 27 Unrecognised contractual commitments

2010  
\$'000

2009  
\$'000

### Operating lease commitments

Commitments in relation to operating leases contracted for at the reporting date but not recognised as liabilities are payable as follows:

Within one year	2 679	2 665
Later than one year but not later than five years	4 175	5 226
Later than five years	125	971
Total Operating lease commitments	6 979	8 862

The department's operating leases are non-cancellable and relate to office accommodation with penalty clauses equal to the amount of the residual payments remaining for the term of the lease. Options exist to renew the leases at the end of the term of the leases. Leases are payable one month in advance.

### Capital commitments

Commitments in relation to capital contracted for at the reporting date but not recognised as liabilities are payable as follows:

Within one year	-	4 216
Total Capital commitments	-	4 216

In 2009, the department's capital commitments related to the construction of environmental works and measures projects.

### Remuneration commitments

Commitments for the payment of salaries and other remuneration under fixed-term employment contracts in existence at the reporting date but not recognised as liabilities are payable as follows:

Within one year	7 395	9 608
Later than one year but not later than five years	7 397	6 121
Total Remuneration commitments	14 792	15 729

Amounts disclosed include commitments arising from executive and other service contracts. The department does not offer fixed-term remuneration contracts greater than five years.

### Other commitments

Other expenditure contracted for at the reporting date but not recognised as liabilities are payable as follows:

Within one year	32 754	28 919
Later than one year but not later than five years	94 364	89 634
Total Other commitments	127 118	118 553

The department's other commitments are for agreements for National Red Imported Fire Ant Eradication Program in Queensland, projects under the Save The River Murray Fund where funds are payable to other agencies undertaking work on behalf of the department, contributions to the Murray Darling Basin Authority, infrastructure costs associated with the Living Murray – Water Recovery Program under inter-government agreements and management of biodiversity assets under the *Upper South East Dryland Salinity and Flood Management Act 2002* and cash and in-kind contributions to Co-Operative Research Centres.

## 28 Contingent assets and liabilities

The department is not aware of the existence of any contingent assets or liabilities.

## 29 Remuneration of board and committee members

Members that were entitled to receive remuneration for membership during the 2010 financial year were:

### Environmental Management Advisory Group - Upper South East

Bachmann MR <sup>#</sup>	Merry R H <sup>*</sup>
Breen R P <sup>#</sup>	Meyer W S <sup>*</sup>
DeJong M C <sup>#</sup>	Mustafa S A <sup>#</sup>
England C R	Schilling J C <sup>#</sup>
Ganf G G <sup>*</sup>	Milne T (appointed 20/12/2009) <sup>*</sup>
Geddes M C <sup>*</sup>	Vines S (retired 19/12/2009) <sup>#</sup>
Hosking J (retired 19/12/2009) <sup>#</sup>	Years D (appointed 20/12/2009) <sup>#</sup>
Hutson J L <sup>*</sup>	White J W <sup>*</sup>
Herpich M (appointed 20/12/2009) <sup>#</sup>	Wood G <sup>#</sup>
Johnson R (retired 19/12/2009) <sup>#</sup>	

### Natural Resources Management Council

Bell W A	Lester K J
Bouchee R M	Mutton D R
Cheshire A C <sup>*</sup>	Russell V
Gates G	Starick S R
Leake J E (appointed 10/09/2009)	Wickes R B

### Natural Resources Management Volunteer Committee

Dennis M M <sup>*</sup>	Pedler J <sup>#</sup>
Liddle L M <sup>#</sup>	Simms F M <sup>#</sup>
MacDonald H C	Todd A J
Martin N K	Vickery F J
Mitchell D E	Woolford C

### Pastoral Board

Anderson B <sup>#</sup>	Loan L M <sup>#</sup>
Bartsch B D (retired 13/10/2009) <sup>#</sup>	McBride M P
Iwanicki I	Mould J <sup>*</sup>
Lamont H K (appointed 13/09/2009) <sup>#</sup>	Oldfield A S
Lillecrapp D G	Vickery F J (appointed 13/09/2009)
Linton V M <sup>#</sup>	Wickes R B

### Water Security Council

Ashby S W <sup>#</sup>	Howe A D <sup>#</sup>
Blackmore D	Knight G R <sup>#</sup>
Bruce L (appointed 2/04/2010) <sup>#</sup>	Maywald K A <sup>#</sup>
Caica P <sup>#</sup>	McLeod R L <sup>#</sup>
Eccles C B <sup>#</sup>	Mutton D R (retired 29/04/2010)
Flett D W	Nightingale I <sup>#</sup>
Fulcher H M <sup>#</sup>	Sherbon A K <sup>#</sup>
Hallion J V <sup>#</sup>	Weatherill J W <sup>#</sup>
Holmes A N <sup>#</sup>	Wright J S <sup>#</sup>
Cunningham B A (retired 1/04/2010) <sup>#</sup>	

### Ministerial Advisory Committee on Branched Broomrape

Arney J T <sup>*</sup>	Marszal J <sup>*</sup>
Berger J A	McGorman J <sup>*</sup>
Cartwright D N <sup>#</sup>	Piggott A M <sup>*</sup>
Cole M <sup>*</sup>	Rossetto M (appointed 06/10/2009) <sup>#</sup>
Dendy A T (retired 17/09/2009) <sup>#</sup>	Thiele M L
Klitscher J G	Warren P <sup>#</sup>
Marks R K <sup>*</sup>	

### Branched Broomrape Community Focus Group

Berger J A

### Natural Resources Management Council

#### Assessment Sub-Committee

Ball C D	Russell V
Crisp A	Starick S R
Leake J E (appointed 10/09/2009)	Stokes K J
Melland R L	Webster G (retired 31/12/2009) <sup>*</sup>

### Natural Resources Management Council

#### Aboriginal Statewide Advisory Committee

Chester J <sup>#</sup>	Lewis G
Crocker L A	Liddle L M <sup>#</sup>
Davey H J	Nicholls D (retired 07/11/2009) <sup>*</sup>
Dodd C E	Simpson A (retired 07/11/2009) <sup>#</sup>
Hartman T J <sup>#</sup>	Vickery F J
Ireland C (retired 07/11/2009) <sup>*</sup>	Walker D C <sup>*</sup>
Lester K J	Wanganeen K B <sup>#</sup>

### Upper South East Program Board

Alexander P J <sup>#</sup>	Johnson C C
Bolster M C	Osborne J L
England R (retired 19/12/2009)	Power N <sup>#</sup>
Gargett A (retired 19/12/2009) <sup>#</sup>	Schweizer C D
Lillecrapp J (retired 19/12/2009)	Stopp G W
Longstaff B (appointed 20/12/2009) <sup>#</sup>	Wickes R B
Rasenber P L (appointed 20/12/2009)	

### South Eastern Water Conservation and

#### Drainage Board Act Review Reference Group [1]

Aslin F W	McLaren B N
Kidman S J	Ross J S
Martin N K	Talanskas M E <sup>#</sup>

### Border Groundwater Review Committee

Hopton H J <sup>#</sup>
Power N <sup>#</sup>
Cohen B L <sup>#</sup>

<sup>#</sup> Denotes government employees

<sup>[1]</sup> No meetings were held during the year and therefore no remuneration was paid to eligible members

<sup>\*</sup> Denotes nil remuneration

The number of members whose remuneration received or receivable falls within the following bands:

	2010 No. of members	2009 No. of members
\$0 - \$9 999	37	45
\$10 000 - \$19 999	3	4
\$20 000 - \$29 999	-	-
\$30 000 - \$39 999	1	-
\$40 000 - \$49 999	1	-
\$50 000 - \$59 999	-	1
	<b>42</b>	<b>50</b>

Remuneration of members reflects all costs of performing board/committee member duties including sitting fees, superannuation contributions, fringe benefits tax and any other salary sacrifice arrangements. The total remuneration received or receivable by members was \$189 000 (2009: \$200 000).

In accordance with the Department of the Premier and Cabinet's Circular PC016 *Remuneration for Government Appointment Part Time Boards and Committees*, government employees did not receive any remuneration for board/committee duties during the financial year. The exception being Pedler J (NRM Volunteer Committee) and Liddle L (NRM Volunteer Committee and NRM Council Aboriginal Statewide Advisory Committee), who sought and were granted exemption from the Chief Executive of the Department of the Premier and Cabinet in accordance with clause 2.4 of Circular PC016.

Unless otherwise disclosed, transactions between members and the department are on conditions no more favourable than those that it is reasonable to expect the department would have adopted if dealing with the related party at arm's length in the same circumstances.

For the purposes of this table, travel allowances and other out-of-pocket expenses paid to members have not been included as remuneration as it is considered to be reimbursement of direct out-of-pocket expenses incurred by the relevant members.

### 30 Cash flow reconciliation

	2010 \$'000	2009 \$'000
<b>Reconciliation of cash and cash equivalents at the end of the reporting period</b>		
Cash at year end as per:		
Cash and cash equivalents disclosed in the Statement of Financial Position	28 899	26 272
Balance as per the Statement of Cash Flows	28 899	26 272
<b>Reconciliation of net cash provided by operating activities to net cost of providing services</b>		
<b>Net cash provided by / (used in) operating activities</b>	<b>19 757</b>	<b>(26 743)</b>
<b>Add/(less)</b>		
Cash flows from SA government	(113 059)	(152 177)
Cash flows to SA government	14 141	-
<b>Add/(less) non-cash items</b>		
Depreciation and amortisation expense of non-current assets	(3 772)	(2 868)
Bad debts expense	(5)	25
(Loss) / gain on disposal of non-current assets	(7)	23
Gain / (loss) on donated assets	-	166
<b>Movement in assets and liabilities</b>		
(Decrease)/increase in receivables	(5 153)	13 789
Increase/(decrease) in inventories	132	227
(Increase)/decrease in payables	(6 722)	(5 931)
(Increase)/decrease in employee benefits	(459)	( 764)
(Increase)/decrease in provisions	(79)	48
<b>Net cost of providing services</b>	<b>(95 226)</b>	<b>(174 205)</b>

### 31 Financial instruments/Financial risk management

#### Categorisation of financial instruments

Details of the significant accounting policies and methods adopted including the criteria for recognition, the basis of measurement, and the basis on which income and expenses are recognised with respect to each class of financial asset, financial liability and equity instrument are disclosed in Note 2 "Summary of Significant Accounting Policies".

Statement of Financial Position line item	Note number	2010		2009	
		Carrying amount	Fair value	Carrying amount	Fair value
		\$'000	\$'000	\$'000	\$'000
<b>Financial assets</b>					
Cash and cash equivalents	18	28 899	28 899	26 272	26 272
Receivables	19	16 346	16 346	21 504	21 504
<b>Financial liabilities</b>					
Payables	23	21 089	21 089	14 367	14 367

#### Credit risk

Credit risk arises when there is the possibility of the department's debtors defaulting on their contractual obligations resulting in financial loss to the department. The department measures credit risk on a fair value basis and monitors risk on a regular basis.

The department has minimal concentration of credit risk. The department has policies and procedures in place to ensure that transactions occur with customers with appropriate credit history. The department does not engage in high risk hedging for its financial assets.

#### Ageing analysis of Financial Assets

The following table discloses the ageing of financial assets and the ageing of impaired assets:

Financial assets item	Overdue for < 30 days \$'000	Overdue for 30–60 days \$'000	Overdue for > 60 days \$'000	Total \$'000
<b>2010</b>				
Not impaired Receivables	13 648	874	1 867	16 389
Impaired Receivables	-	-	(43)	(43)
<b>2009</b>				
Not impaired Receivables	18 293	793	2 456	21 542
Impaired Receivables	-	-	(38)	(38)

#### Maturity analysis of financial assets and liabilities

The following table discloses the maturity analysis of financial assets and financial liabilities.

Financial statements item	Contractual maturities		
	< 1 year \$'000	1-5 years \$'000	Carrying amount \$'000
<b>2010</b>			
<b>Financial assets</b>			
Cash and cash equivalents	28 899	-	28 899
Receivables	16 346	-	16 346
<i>Total financial assets</i>	45 245	-	45 245
<b>Financial liabilities</b>			
Payables	21 089	-	21 089
<i>Total financial liabilities</i>	21 089	-	21 089
<b>2009</b>			
<b>Financial assets</b>			
Cash and cash equivalents	26 272	-	26 272
Receivables	21 504	-	21 504
<i>Total financial assets</i>	47 776	-	47 776
<b>Financial liabilities</b>			
Payables	14 367	-	14 367
<i>Total financial liabilities</i>	14 367	-	14 367

#### Liquidity risk

Liquidity risk arises where the department is unable to meet its financial obligations as they fall due. The department is funded principally from appropriations by the SA Government as well as from grant payments received principally from the Commonwealth Government. The department works with the Department of Treasury and Finance to determine the cash flows associated with its Government approved program of work and to ensure funding is provided through SA Government budgetary processes to meet the expected cash flows. The department settles undisputed accounts within 30 days from the date of the invoice or date the invoice is first received. In the event of a dispute, payment is made 30 days from resolution.

The department's exposure to liquidity risk is insignificant based on past experience and current assessment of risk.

#### Market risk

The department has no interest bearing liabilities as at the end of the reporting period. There is no exposure to foreign currency or other price risks.

A sensitivity analysis has not been undertaken for the interest rate risk of the department as it has been determined that the possible impact on profit and loss or total equity from fluctuations in interest rates is immaterial.



### **32 Events after the reporting period**

#### **Machinery of Government**

On 18 May 2010 the Government announced its intention to undertake a 'Machinery of Government' restructure, effective from 1 July 2010. The department's responsibilities will refocus on all aspects of water resources management in the State. Administrative activities previously undertaken by the department in relation to natural resources management activities and for State Flora will be transferred to the Department for Environment and Natural Resources (DENR). Administrative responsibilities previously undertaken by the department in relation to bio-security and biodiversity activities will be transferred to the Department of Primary Industries and Resources (PIRSA). The activities being transferred impact on 215 staff (143 to DENR and 72 to PIRSA). The financial effect of this restructure has not been reflected in the financial statements.

#### **Goyder Institute for Water Research**

The department took a lead role in the establishment of the Goyder Institute for Water Research, announced in May 2010 by the Premier and the Federal Minister for Innovation. The Goyder Institute is a five-year, \$50 million collaboration between the South Australian Government, CSIRO, the University of Adelaide, Flinders University and the University of South Australia. It will provide expert scientific advice to help the South Australian Government address the State's key water policy issues. The department will commence making financial contributions, of \$5m per annum, to the Institute in 2010/11.

**Department of Water, Land and Biodiversity Conservation**

**Statement of Administered Comprehensive Income**

**For the Year Ended 30 June 2010**

	<b>Note</b>	<b>2010</b>	<b>2009</b>
		<b>\$'000</b>	<b>\$'000</b>
<b>Administered Expenses</b>			
Employee benefit expenses		<b>198</b>	259
Supplies and services		<b>43</b>	52
Grants and subsidies	A2	<b>47 212</b>	49 890
Payments to Consolidated Account		<b>423</b>	602
Payments to Natural Resources Management Boards	A3	<b>12 505</b>	12 559
Payments to South Eastern Water Conservation Drainage Board		<b>1 969</b>	1 921
<b>Total Administered Expenses</b>		<b>62 350</b>	65 283
<b>Administered Income</b>			
Revenues from SA Government	A4	<b>25 870</b>	26 794
Revenues from fees and charges	A5	<b>7 529</b>	7 466
Grant revenues	A6	<b>22 727</b>	23 712
Other revenues	A7	<b>619</b>	1 235
<b>Total Administered Income</b>		<b>56 745</b>	59 207
<b>Net Result</b>		<b>(5 605)</b>	(6 076)
<b>Other Comprehensive Income</b>			
Gain on revaluation of interest in joint venture	A10	<b>51 554</b>	19 459
<b>Total Other Comprehensive Income</b>		<b>51 554</b>	19 459
<b>Total Comprehensive Result</b>		<b>45 949</b>	13 383

*The net result and comprehensive result are attributable to the SA Government as owner.*

*The above statement should be read in conjunction with the accompanying notes.*

**Department of Water, Land and Biodiversity Conservation**  
**Statement of Administered Financial Position**  
**As at 30 June 2010**

	Note	2010 \$'000	2009 \$'000
<b>Administered Current Assets</b>			
Cash and cash equivalents	A8	16 582	22 072
Receivables	A9	5 439	5 144
<b>Total Current Assets</b>		<u>22 021</u>	<u>27 216</u>
<b>Administered Non-Current Assets</b>			
Interest in joint venture	A10	718 059	666 505
Land	A11	32 938	32 938
<b>Total Non-Current Assets</b>		<u>750 997</u>	<u>699 443</u>
<b>Total Assets</b>		<u>773 018</u>	<u>726 659</u>
<b>Administered Current Liabilities</b>			
Payables	A12	4 397	3 987
<b>Total Current Liabilities</b>		<u>4 397</u>	<u>3 987</u>
<b>Total liabilities</b>		<u>4 397</u>	<u>3 987</u>
<b>Net assets</b>		<u>768 621</u>	<u>722 672</u>
<b>Administered Equity</b>			
Asset revaluation surplus		255 852	204 298
Retained earnings		512 769	518 374
<b>Total Equity</b>		<u>768 621</u>	<u>722 672</u>

The total equity is attributable to the SA Government as owner

Contingent assets and liabilities A13

*The above statement should be read in conjunction with the accompanying notes*

**Department of Water, Land and Biodiversity Conservation**

**Statement of Administered Changes in Equity**

**For the Year Ended 30 June 2010**

	<b>Note No.</b>	<b>Asset Revaluation Surplus \$'000</b>	<b>Retained Earnings \$'000</b>	<b>Total \$'000</b>
<b>Balance at 30 June 2008</b>		184 839	524 956	<b>709 795</b>
Error correction - receivables		-	(506)	<b>(506)</b>
<b>Restated balance at 30 June 2008</b>		<b>184 839</b>	<b>524 450</b>	<b>709 289</b>
Net result for 2008/09		-	(6 076)	(6 076)
Revaluation adjustment - interest in joint venture	A10	19 459	-	19 459
<b>Total comprehensive result for 2008/09</b>		<b>19 459</b>	<b>(6 076)</b>	<b>13 383</b>
<b>Balance at 30 June 2009</b>		<b>204 298</b>	<b>518 374</b>	<b>722 672</b>
Net result for 2009/10		-	(5 605)	(5 605)
Revaluation adjustment - interest in joint venture	A10	51 554	-	51 554
<b>Total comprehensive result for 2009/10</b>		<b>51 554</b>	<b>(5 605)</b>	<b>45 949</b>
<b>Balance at 30 June 2010</b>		<b>255 852</b>	<b>512 769</b>	<b>768 621</b>

All changes in equity are attributable to the SA Government as owner

*The above statement should be read in conjunction with the accompanying notes.*

**Department of Water, Land and Biodiversity Conservation**

**Statement of Administered Cash Flows**

**For the Year Ended 30 June 2010**

	Note	2010 \$'000	2009 \$'000
<b>Cash flows from operating activities</b>			
<b>Cash outflows</b>			
Employee benefit payments		(198)	(259)
Payments for supplies and services		(43)	(52)
Payments for grants and subsidies		(47 212)	(49 890)
Payments to Consolidated Account		(813)	-
Payments for Natural Resources Management Boards		(11 706)	(13 621)
Payments for South Eastern Water Conservation Drainage Board		(1 969)	(1 921)
<b>Cash used in operations</b>		<u>(61 941)</u>	<u>(65 743)</u>
<b>Cash inflows</b>			
Receipts from Government		25 870	26 794
Fees and charges		7 236	5 546
Grant receipts		22 727	23 712
Other receipts		618	1 349
<b>Cash generated from operations</b>		<u>56 451</u>	<u>57 401</u>
<b>Net cash (used in) operating activities</b>		<u>(5 490)</u>	<u>(8 342)</u>
<b>Net (decrease) in cash and cash equivalents</b>	A8	<u>(5 490)</u>	<u>(8 342)</u>
<b>Cash and cash equivalents at the beginning of the period</b>		22 072	30 414
<b>Cash and cash equivalents at the end of the period</b>	A8	<u>16 582</u>	<u>22 072</u>

*The above statement should be read in conjunction with the accompanying notes*

*All GST receipts and payments are recognised in the Department's Statement of Cash Flows*

**Department of Water, Land and Biodiversity Conservation**  
**Schedule of expenses and income attributable to administered activities**  
**For the Year Ended 30 June 2010**

	NRM Fund	Qualco Sun-Lands	Pastoral Board	National Action Plan for Salinity and Water Quality	Natural Heritage Trust Grants	Centre for NRM	NRM Alliance Fund	Caring for our Country	State NRM Program	Stormwater Management Authority	DWLBC Corporate Administered Items	Eliminations	Program Total	
	2010 \$'000	2010 \$'000	2010 \$'000	2010 \$'000	2010 \$'000	2010 \$'000	2010 \$'000	2010 \$'000	2010 \$'000	2010 \$'000	2010 \$'000	2010 \$'000	2010 \$'000	2009 \$'000
<b>Expenses</b>														
Employee benefit expenses	-	-	-	-	-	-	-	-	-	-	198	-	198	259
Supplies and services	33	-	7	3	-	-	-	-	-	-	-	-	43	52
Grants and subsidies	25	-	3	7 540	88	97	773	19 178	14 602	4 308	3 921	(3 323)	47 212	49 890
Payments to consolidated account	-	250	-	-	-	-	-	-	-	-	173	-	423	602
Payments to Natural Resources Management Boards	12 505	-	-	-	-	-	-	-	-	-	-	-	12 505	12 559
Payments to South East Water Conservation Drainage Board	-	-	-	-	-	-	-	-	-	-	1 969	-	1 969	1 921
<b>Total Administered Expenses</b>	<b>12 563</b>	<b>250</b>	<b>10</b>	<b>7 543</b>	<b>88</b>	<b>97</b>	<b>773</b>	<b>19 178</b>	<b>14 602</b>	<b>4 308</b>	<b>6 261</b>	<b>(3 323)</b>	<b>62 350</b>	65 283
<b>Income</b>														
Revenues from SA Government	-	250	13	-	-	-	-	-	14 500	4 308	6 799	-	25 870	26 794
Revenues from fees and charges	7 593	-	-	-	-	-	-	-	-	-	(64)	-	7 529	7 466
Grant revenues	6 403	-	-	781	631	-	574	17 522	139	-	-	(3 323)	22 727	23 712
Other revenues	91	-	-	455	47	-	-	26	-	-	-	-	619	1 235
<b>Total Administered Income</b>	<b>14 087</b>	<b>250</b>	<b>13</b>	<b>1 236</b>	<b>678</b>	<b>-</b>	<b>574</b>	<b>17 548</b>	<b>14 639</b>	<b>4 308</b>	<b>6 735</b>	<b>(3 323)</b>	<b>56 745</b>	59 207
<b>Net result</b>	<b>1 524</b>	<b>-</b>	<b>3</b>	<b>(6 307)</b>	<b>590</b>	<b>(97)</b>	<b>(199)</b>	<b>(1 630)</b>	<b>37</b>	<b>-</b>	<b>474</b>	<b>-</b>	<b>(5 605)</b>	(6 076)

**Department of Water, Land and Biodiversity Conservation**  
**Schedule of Assets and Liabilities attributable to administered activities**  
**For the Year Ended 30 June 2010**

	NRM Fund	Qualco Sun- Lands	Pastoral Board	National Action Plan for Salinity and Water Quality	Natural Heritage Trust Grants	NRM Alliance Fund	Caring for our Country	State NRM Program	DWLBC Corporate Administered Items	Program Total
	2010 \$'000	2010 \$'000	2010 \$'000	2010 \$'000	2010 \$'000	2010 \$'000	2010 \$'000	2010 \$'000	2010 \$'000	2010 \$'000
<b>Assets</b>										
Cash & Cash Equivalents	3 375	250	44	7 981	2 298	255	321	143	1 915	16 582
Receivables	4 853	-	-	46	6	-	1	72	461	5 439
Interest in Joint Ventures	-	-	-	-	-	-	-	-	718 059	718 059
Land	-	-	32 938	-	-	-	-	-	-	32 938
<b>Total Administered Assets</b>	<b>8 228</b>	<b>250</b>	<b>32 982</b>	<b>8 027</b>	<b>2 304</b>	<b>255</b>	<b>322</b>	<b>215</b>	<b>720 435</b>	<b>773 018</b>
<b>Liabilities</b>										
Payables	3 206	250	3	-	4	255	-	135	544	4 397
<b>Total Administered Liabilities</b>	<b>3 206</b>	<b>250</b>	<b>3</b>	<b>-</b>	<b>4</b>	<b>255</b>	<b>-</b>	<b>135</b>	<b>544</b>	<b>4 397</b>
<b>Net Assets</b>	<b>5 022</b>	<b>-</b>	<b>32 979</b>	<b>8 027</b>	<b>2 300</b>	<b>-</b>	<b>322</b>	<b>80</b>	<b>719 891</b>	<b>768 621</b>

**Department of Water, Land and Biodiversity Conservation**  
**Notes to and forming part of the Administered Financial Statements**  
**For the Year Ended 30 June 2010**

**A1 Summary of Significant Administered Accounting Policies**

The department's accounting policies are contained in Note 2 'Summary of Significant Accounting Policies'. The policies outlined in Note 2 apply to both the department's controlled and administered items, unless otherwise noted below.

The Administered Items reflect an accumulation of the balances of each of the individual Administered Items. Transactions between individual administered items are not eliminated from the administered financial statements.

Some activities have been restructured to assist in the interpretation of the financial transactions relating to the Natural Resources Management Fund (NRM Fund).

Specific provisions of the *Natural Resources Management Act 2004* (NRM Act) require that the following revenues be paid into the NRM Fund prior to being applied for the purposes of the NRM Act:

- Government appropriations (controlled and administered allocated in respect of the regional Natural Resources Management Boards);
- Water levies;
- Penalties relating to water levies;
- Expiation fees and other penalties.

Further commentary regarding these requirements under the NRM Act is provided hereunder.

**(a) Natural Resources Management Fund**

The NRM Fund was established pursuant to subsection 117(1) of the NRM Act. The Minister for Environment and Conservation (the Minister) administers the NRM Fund and may apply any part of the NRM Fund in making payments to the regional NRM Boards; in paying subsidies or making grants or other payments to NRM authorities or other persons or bodies for the purposes of the NRM Act. This may also include making any payment required, or authorised by or under the NRM Act or any other law.

The balance of the NRM Fund at 30 June 2010 was \$3.375m (2009: \$2.426m).

**(b) Natural Resources Management Boards**

The Natural Resources Management Boards (NRM Boards) were established pursuant to subsection 23(1) of the NRM Act. The department administers various revenues and expenses on account of the NRM Boards.

Transactions relating to the NRM Boards are separately shown against this program description, which reflects both revenues and expenses administered by the department in respect of the NRM Boards. These are:

**(i) Grants**

Grants include monies that had been previously distributed under the Animal Plant Control Commission and the Soil Conservation Council, for which the department received appropriations and paid to the Regional NRM Boards in the form of grants were as follows:

<b>Regional NRM Board</b>	<b>2010</b>	<b>2009</b>
	<b>\$'000</b>	<b>\$'000</b>
SA Murray-Darling Basin NRM Board	200	200
South East NRM Board	295	271
Northern and Yorke NRM Board	465	450
Kangaroo Island NRM Board	530	521
Alinytjara Wilurara NRM Board	700	700
South Australian Arid Lands NRM Board*	600	600
Eyre Peninsula NRM Board	610	600
	<b>3 400</b>	<b>3 342</b>

\* Total payments distributed to the NRM Boards included an additional \$0.400m received by the department, included in Revenues from Government. This represented administered appropriations received by the department in respect of the South Australian Arid Lands NRM Board.

**(ii) Water Levies**

Water levies are collected by the department for prescribed water resources in regional NRM Boards under section 101 of the NRM Act. The levies are subsequently paid to the regional NRM Boards pursuant to subsection 116(1)(a)(ii)(A) of the NRM Act.

Levies raised by the department during 2009-10 were \$6.757m (2009: \$6.050m). Unpaid levies at the end of the reporting period of \$2.350m (2009: \$1.654m) have been recognised as current receivables. Receivables factor in adjustments in respect of financial relief provided to River Murray licensees, to offset 38 percent of their liability to pay the NRM water levies.

Levies received, but not yet paid to the regional NRM Boards at the end of the reporting period were \$0.45m (2009: \$0.299m). In addition, levy reduction payments of \$0.905m was payable to the SA Murray-Darling Basin NRM Board. During the reporting period the following levies were raised in respect of the regions for which the levies were declared:

<b>Regional NRM Board *</b>	<b>2010</b>	<b>2009</b>
	<b>\$'000</b>	<b>\$'000</b>
SA Murray-Darling Basin NRM Board	3 740	3 617
South East NRM Board	1 811	1 639
Adelaide and Mount Lofty Ranges NRM Board	350	319
Eyre Peninsula NRM Board	385	369
South Australian Arid Lands NRM Board	404	106
Northern and Yorke NRM Board	67	-
	<b>6 757</b>	<b>6 050</b>

\* Does not include penalties and other payments made or payable to regional NRM Boards. Refer Note A5.



*(iii) Penalties*

Penalties declared in relation to the unauthorised or unlawful taking or use of water were raised pursuant to section 115 of the NRM Act.

In addition, to the penalties raised and received in respect of the NRM Act, penalties were also received (though not raised) during 2009-10 under subsection 133(1)(a) of the *Water Resources Act 1997* (WR Act).

Subsection 115(5) of the NRM Act and regulation 9(d) of the *Natural Resources Management (Financial Provisions) Regulations 2005* provide

The levies pursuant to subsection 115(5) were paid to the regional NRM Boards, with the exception of unpaid penalty charges at the end of the reporting period of \$2.957m (2009: \$2.810m). Of this amount, \$0.462m (2009: \$0.699m) related to penalties raised under the WR Act and \$2.495m (2009: \$2.111m) under the NRM Act.

Penalties received under the NRM Act are payable to the regional NRM Boards and at 30 June 2010 the amount payable was \$1.373m (2009: \$0.941m).

Penalties declared under subsection 133(1)(a) of the WR Act continued to be received during 2009-10, although no new penalties were raised. Penalties received under the WR Act and payable to the Treasurer's Consolidated Account at 30 June 2010 were \$0.543m (2009: \$0.369m).

*(iv) Reimbursement of Payroll Tax*

NRM Boards are compensated for the anticipated payroll tax expense they incur, with provision having been made in the Administered Items of the department's budget on an ongoing basis since 2004-05. An appropriation of \$1.002m (2009: \$0.978m) was received to fund the payroll tax expenses of the NRM Boards for 2009-10.

*(v) Expiation Fees and other Penalties under the NRM Act*

Expiation fees and penalties are recovered in respect of offences against the NRM Act (eg for unlawful possession of animals or plants). Unlike penalties declared under section 115 of the NRM Act, they are not required to be paid to regional NRM Boards. No fees and/or penalties of this type were collected during 2009-10.

**(c) Qualco Sunlands**

The *Ground Water (Qualco-Sunlands) Control Act 2000* (GW(QS)C Act) established a scheme to be managed by a Trust to prevent, and reverse, the salinisation and water logging of horticultural land due to irrigation induced factors. The department collects levies and pays instalments in accordance with the provisions of the GW(QS)C Act.

**(d) National Action Plan for Salinity and Water Quality**

The National Action Plan (NAP) is a bilateral agreement between the Commonwealth and SA Governments signed in 2001 providing funds to address issues associated with salinity and water quality in priority regions in South Australia. The Commonwealth and the SA Governments made progressive contributions to a single holding account. Disbursement of funds from the account is by agreement between the parties.

**(e) Natural Heritage Trust and Natural Heritage Trust Extension**

The Natural Heritage Trust (NHT) was established by the *Natural Heritage Trust of Australia Act 1997*. The Bilateral Agreement to deliver the Natural Heritage Trust Extension reflects the intention of the Commonwealth and SA Governments to work as joint investment partners, with the community and other stakeholders, in natural resource management activities including biodiversity conservation, sustainable use of natural resources and community capacity building and institutional change. Funding for NHT ceased on 30 June 2008 and all projects were completed by 31 December 2009.

**(f) Mount Lofty Ranges Catchment Support**

The Mount Lofty Ranges Catchment Support Group was established to implement the Integrated Natural Resource Management program for the Mount Lofty and Adelaide regions. Functions include the disbursement of grants to local communities, NRM Boards, local Government and other SA Government Departments together with the management of associated projects. Funds are disbursed subject to the NAP and NHT bilateral processes.

**(g) Centre for Natural Resource Management**

The Centre for Natural Resource Management (Centre) with its Investment Advisory Board (Board) develops and maintains partnerships with regional NRM groups, scientists and researchers, business and industry, governments and agencies, so that integrated natural resource management across South Australia is based on world-class research and development. A primary role of the Centre and its Board is to create more sustainable environments through the development of new technologies and industries, which benefit the environment and are economically sustainable.

The Board makes decisions on the disbursement of National Action Plan (NAP) and other funds in relation to its portfolios of identified regional priority projects, and to the timeliness and quality of research provider delivery. The Board also oversees the stakeholder engagement process, brokers and builds relationships, alliances and partnerships, and seeks to leverage co-investment against NAP funding.

**(h) Pastoral Board**

Funds applied by the Minister, on the recommendation of the Board for research and publication of techniques for pastoral land management, for prevention or minimisation of pastoral land degradation and for rehabilitation of degraded pastoral land. During the reporting period an appropriation of \$3 000 (2009: \$3 000) was received.

(i) **State NRM Program**

The State NRM program is the SA Government's initiative to financially support the effective management of South Australia's natural resources. The program seeks to meet targets in both South Australia's Strategic Plan and the State NRM Plan.

Under the Caring for our Country program, the Commonwealth has removed the requirement for matching funding (as per NHT and NAP), however there is an expectation that South Australia will continue to contribute financial and in-kind support through a complementary State natural resources management program that is at least equivalent to the level of funding provided under previous programs. Therefore the State NRM program is complementary to the Commonwealth's 'Caring for our Country' initiative.

(j) **Caring for our Country**

The Caring for our Country Program is between the Commonwealth of Australia ('the Commonwealth') and the State of South Australia ('the State') pursuant to clause 19(2) of the *Natural Heritage Trust of Australia Act 1997* (Commonwealth) and Section 5 of the *Natural Resources Management (Financial Assistance) Act 1992* (Commonwealth).

In March 2008 the Commonwealth announced Caring for our Country as an ongoing and integrated program, bringing together the delivery of the Natural Heritage Trust, National Landcare Program, Environmental Stewardship and Working on Country Programs. This program is fully Commonwealth funded and disbursed based on Commonwealth approval.

(k) **NRM Alliance Fund**

The NRM Alliance Fund was established as a collaborative arrangement to facilitate the delivery of NRM science and research to a range of organisations including agencies of the Commonwealth of Australia, agencies of the South Australian Government, NRM Boards and private sector organisations, and for such NRM science and research to be provided to clients by one or more of the parties with the necessary expertise and capability.

(l) **South Eastern Water Conservation and Drainage Board**

The South Eastern Water Conservation and Drainage Board (SEWCDB) was established pursuant to Division 1 of the *South Eastern Water Conservation and Drainage Act 1992*. The department supplies funding to the SEWCDB on a quarterly basis; the funding is sourced from appropriations provided by the Department of Treasury & Finance.

**A2 Grants and Subsidies**

	2010	2009
	\$'000	\$'000
DWLBC Corporate Administration Items	3 921	4 758
National Action Plan for Salinity and Water Quality	7 540	7 137
Natural Heritage Trust Grants	88	4 224
Mt Lofty Ranges Catchment Support	-	20
Centre for Resource Management	97	935
NRM Fund	25	89
NRM Alliance Fund	773	759
Caring for our Country	19 178	17 148
State NRM Program	14 602	16 220
Transfer to Storm Water Management Authority	4 308	4 203
Pastoral Board	3	-
Elimination of intra program transactions	(3 323)	(5 603)
<b>Total Grants and Subsidies</b>	<b>47 212</b>	<b>49 890</b>

**Grants and subsidies paid/payable to entities within the SA Government**

The following grants and subsidies (included in the grants and subsidies amounts shown above) were provided to entities within the SA Government:

	2010	2009
	\$'000	\$'000
DWLBC Corporate Administration Items	3 921	4 758
National Action Plan for Salinity and Water Quality	7 390	6 487
Natural Heritage Trust Grants	34	3 891
Mt Lofty Ranges Catchment Support	-	20
Centre for Resource Management	12	595
NRM Fund	25	89
NRM Alliance Fund	607	659
Caring for our Country	18 828	17 148
State NRM Program	11 779	16 190
Elimination of intra program transactions	(3 323)	(5 603)
<b>Total: Grants and subsidies paid/payable to entities within the SA Government</b>	<b>39 273</b>	<b>44 234</b>

**A3 Payments to Natural Resources Management Boards**

	2010	2009
	\$'000	\$'000
Water levies	7 122	7 258
Grants to NRM Boards	3 800	3 742
Payroll tax	1 151	1 176
Penalties payable	432	383
<b>Total Payments to Natural Resources Management Boards</b>	<b>12 505</b>	<b>12 559</b>

Note that the Natural Resources Management Boards are all entities within the SA Government.

<b>A4 Revenues from SA Government</b>	<b>2010</b>	<b>2009</b>
	<b>\$'000</b>	<b>\$'000</b>
Recurrent Appropriations	11 151	10 535
Appropriations received for the Minister's Salary	219	259
Transfer from Contingencies	14 500	16 000
<b>Total Revenues from SA Government</b>	<b>25 870</b>	<b>26 794</b>
<b>A5 Revenues from Fees and Charges</b>	<b>2010</b>	<b>2009</b>
	<b>\$'000</b>	<b>\$'000</b>
Water levies	6 757	6 050
Penalties	760	1 416
Other	12	-
<b>Total Revenues from Fees and Charges</b>	<b>7 529</b>	<b>7 466</b>
<b>Fees and charges received/receivable from entities within the SA Government</b>		
The following fees and charges (included in the fees and charges revenues shown above) were received/receivable from entities within the SA Government:		
	<b>2010</b>	<b>2009</b>
	<b>\$'000</b>	<b>\$'000</b>
Water levies	2 910	2 704
<b>Total Fees and charges received/receivable from entities within the SA Government</b>	<b>2 910</b>	<b>2 704</b>
<b>A6 Grant Revenues</b>	<b>2010</b>	<b>2009</b>
	<b>\$'000</b>	<b>\$'000</b>
NRM Fund	6 403	7 552
National Action Plan for Salinity and Water Quality	781	429
Natural Heritage Trust Grants	631	498
Mt Lofty Ranges Catchment Support	-	97
Centre for Resource Management	-	772
NRM Alliance Fund	574	724
Caring for our Country	17 522	18 980
State NRM Program	139	263
Elimination of intra program transactions	(3 323)	(5 603)
	<b>22 727</b>	<b>23 712</b>
<b>Grant revenues received/receivable from entities within the SA Government</b>		
The following grant revenues (included in the grants revenues shown above) were received/receivable from entities within the SA Government:		
	<b>2010</b>	<b>2009</b>
	<b>\$'000</b>	<b>\$'000</b>
NRM Fund	6 403	7 552
National Action Plan for Salinity and Water Quality	781	4
Natural Heritage Trust Grants	631	-
Mt Lofty Ranges Catchment Support	-	97
Centre for Resource Management	-	772
NRM Alliance Fund	454	724
Caring for our Country	176	-
State NRM Program	72	-
Elimination of intra program transactions	(3 323)	(5 603)
<b>Total: Grant revenues received/receivable from entities within the SA Government</b>	<b>5 194</b>	<b>3 546</b>
<b>A7 Other Revenues</b>	<b>2010</b>	<b>2009</b>
	<b>\$'000</b>	<b>\$'000</b>
NRM Fund	91	142
National Action Plan for Salinity and Water Quality	455	812
Natural Heritage Trust Grants	47	132
Caring for our Country	26	119
DWLBC Corporate Administered Items	-	30
<b>Total Other Revenues</b>	<b>619</b>	<b>1 235</b>
<b>Other revenues received/receivable from entities within the SA Government</b>		
The following other revenues (included in the other revenues shown above) was received/receivable from entities within the SA Government:		
	<b>2010</b>	<b>2009</b>
	<b>\$'000</b>	<b>\$'000</b>
NRM Fund	91	141
National Action Plan for Salinity and Water Quality	455	812
Natural Heritage Trust Grants	47	132
Caring for our Country	26	119
DWLBC Corporate Administered Items	-	30
<b>Total: Other revenues received/receivable from entities within the SA Government</b>	<b>619</b>	<b>1 234</b>

**A8 Administered Cash Flow Reconciliation**

Reconciliation of cash and cash equivalents at the end of the reporting period:	2010 \$'000	2009 \$'000
Natural Resources Management Fund	3 375	2 426
Qualco Sunlands	250	813
Pastoral Board	44	38
National Action Plan for Salinity and Water Quality	7 981	14 299
Natural Heritage Trust Grants	624	657
Natural Heritage Trust Extension	802	(96)
National Landcare Program	872	680
Natural Resource Management Alliance Fund	255	166
Centre for Natural Resource Management	-	97
Caring for our Country	321	1 946
State NRM Program	143	16
The Department's Corporate Administrative Items	1 915	1 030
	<b>16 582</b>	<b>22 072</b>
Balance as per Administered Cash Flows	<b>16 582</b>	<b>22 072</b>
<b>Reconciliation of net cash (used in) operating activities to net result:</b>		
Net cash (used in) operating activities	(5 490)	(8 342)
<b>Movement in Assets and Liabilities</b>		
Increase/(decrease) in receivables	295	1 806
(Increase)/decrease in payables	(410)	460
	<b>(5 605)</b>	<b>(6 076)</b>

**A9 Receivables**

	2010 \$'000	2009 \$'000
Receivables reflected as current assets at 30 June comprised the following:		
Water levies	2 350	1 654
Penalties	2 957	2 810
Accrued interest	50	48
Other	82	632
<b>Total Receivables</b>	<b>5 439</b>	<b>5 144</b>
<b>Receivables from entities within the SA Government</b>		
The following receivables (included in the receivables shown above) were receivable from entities within the SA		
	2010 \$'000	2009 \$'000
Accrued interest	50	48
Other	82	632
	<b>132</b>	<b>680</b>

**A10 Interest in Joint Venture**

During the year ended 30 June 2009, the agreements for the management of the assets and resources (the water) within the Murray-Darling Basin Commission were restructured. The transition date to the new arrangements was 14 December 2008.

Prior to the restructure, the department accounted for the State's interest in the Murray-Darling Basin Commission ("MDBC") as an equity accounted interest in a joint venture entity and the interest has been reported by the department as an administered item. At the date of transition the MDBC ceased to exist and was replaced by the Commonwealth wholly owned entity the Murray Darling Basin Authority (MDBA).

Following the restructure, under the revised arrangements, the venturers no longer have a joint interest in net assets, but instead, they have a joint interest specifically in the infrastructure assets and water rights (as opposed to an interest in an entity controlling/holding the assets). The share in the individually controlled assets was transferred at transition in the original proportions of the share of the entity held by the individual jurisdictions as follows: New South Wales 26.67%; South Australia 26.67%; Victoria 26.67%; the Commonwealth Government 20%.

For the year ended 30 June 2010 the department recognised an increase in its joint interest in MDBA assets of \$51.554m (2009: \$19.459m), bringing the department's total recognition in the MDBA assets to \$718.0m (2009: \$666.5m)

**A11 Land**

The Pastoral Board is responsible for administering pastoral leases under the *Pastoral Land Management and Conservation Act 1989* (PLM&C Act). The unimproved value of land subject to these leases was revalued at \$32 938 000 as at 1 November 2005 by Robin Norris, Senior Valuer, of the Department for Transport, Energy and Infrastructure - Land Services giving rise to an asset revaluation reserve of \$9 355 000. There were no increases in asset values in 2009-10.

The revenue generated by the pastoral leases is recorded within the Department's Controlled items (Note 17) in accordance with the PLM&C Act, to cover the costs incurred by the Department in administering the pastoral leases.

<b>A12 Payables</b>	<b>2010</b>	<b>2009</b>
	<b>\$'000</b>	<b>\$'000</b>
Payables reflected as current liabilities at 30 June comprised the following:		
Penalties - Treasurer's Consolidated Account	543	369
Penalties - Regional NRM Boards	1 373	941
Payroll Tax - Regional NRM Boards	371	358
Qualco - Treasurer's Consolidated Account	250	813
National Landcare Program	-	4
Water levies	1 355	1 318
State NRM Program	135	101
NRM Alliance Fund	255	-
Other	115	83
<b>Total Payables</b>	<b>4 397</b>	<b>3 987</b>
<b>Payables to entities within the SA Government</b>		
The following payables (included in the payables shown above) were payable to entities within the SA Government:	<b>2010</b>	<b>2009</b>
	<b>\$'000</b>	<b>\$'000</b>
Penalties - Treasurer's Consolidated Account	543	369
Penalties - Regional NRM Boards	1 373	941
Payroll Tax - Regional NRM Boards	371	358
Qualco - Treasurer's Consolidated Account	250	813
Water levies	1 355	1 011
State NRM Program	-	71
NRM Alliance Fund	205	-
Other	107	83
Total Payables to entities within the SA Government	4 204	3 646

**A13 Contingent assets and liabilities**

A contingent asset is acknowledged whereby the Minister for Water Security has an exclusive right to access 40M per day from the Langhorne and Currency Creek pipeline. The Minister has not exercised this right. The department is not aware of the existence of any contingent liabilities.

## Appendix C – Account Payment Performance

### Account Payment Performance 2009-10

Particulars	Number of accounts paid	Percentage of accounts paid (by number)	Value in \$A of accounts paid	Percentage of accounts paid (by value)
<b>Paid by due date</b>	17,295	87	195,998,716	78
<b>Paid late, within 30 days of due date</b>	1,631	8	43,170,989	17
<b>Paid more than 30 days from due date</b>	889	5	10,781,596	5
	<b>19,815</b>	<b>100%</b>	<b>249,951,301</b>	<b>100%</b>

Note: The due date is defined under section 11.7 of Treasurer's Instruction 11 Payment of Creditors' Accounts. Generally, unless there is a discount or a written agreement between the Department and the creditor, payment should be within thirty days of the date of the invoice or claim. On some occasions the Department received invoices significantly later than the invoice date, due to supplier invoicing processes. The Department's Finance Committee regularly reviews the payment performance and considerable effort has been focused on keeping business units up-to-date on the status of their payment performance and on developing improved internal payment business processes.

## **Appendix D – Fraud**

No instances of fraud were detected within DWLBC during 2009-10.

The Department had a Fraud and Corruption Policy and various supporting policies and procedures in place (such as the Credit Card Policy, Financial Management Compliance Program) to minimise the risk of fraud. In addition, the Department's governance committees (such as the Audit and Risk Committee, Finance Committee) had oversight in reviewing the potential for fraud, including the adequacy of controls.

Changes to the Treasurer's Instructions, effective from 1 July 2008, requires greater emphasis with respect to a fraud and corruption, including the controls supporting their detection and minimisation. The Department's Audit and Risk Committee had responsibility for ensuring the effectiveness of internal controls.

## Appendix E – Consultants

CONSULTANTS TO 30 June 2010	SERVICE PROVIDED	EXPENDITURE \$
<b>Below \$10,000</b>		
65 Minor Consultancies		219,787
<b>\$10,000-\$50,000</b>		
Aquaterra Consulting Pty Ltd	Professional Services relating to SA salinity registers risk assessment- Completion of Milestone 2 Submission and acceptance of final report	10,000
Areaba Pty Ltd	MAD Business Analysis and Report Business Analysis Services	10,000
KPMG	Advice Re Governance Structure for Future Water Supply Planning	10,000
Richard Clark & Associates	Professional review of report "Development of a technical Basis for a regional flow Management Strategy for the South East of South Australia"	10,000
CA Technology	Review of Water Licence Fees	10,500
Beatwave Pty Ltd	Survey re Water For Good Plan	10,666
KPMG	Advisory Services for Water for Good Plan	10,850
Sinclair Knight Merz	Professional fees associated with advice on impacts of the Wellington weir, on water levels and River Bank Collapse in the Lower River Murray Pool	10,851
Aust Groundwater Technol Pty Ltd	Review of groundwater resources - Awnrm Board area	11,400
Elsbar Pty Ltd	Professional consultancy services for Office for Water Security - H De Jong	11,772
Intelligent Software Development	Development of Water Demand and Supply Model	12,500
Sinclair Knight Merz	Professional Services in connection with study into Riverbank collapsing-detailed geotechnical investigation at Swan Reach and Walker Flat	14,245
Sinclair Knight Merz	Professional Services in conjunction with a study into Riverbank collapsing – additional detailed geotechnical investigations at Sturt Reserve and Caloote	14,358
Access Economics	Peer review of the paper "Private and Public Benefits and their application to cost sharing for Murray Futures Projects"	14,629
Aquaterra Consulting Pty Ltd	Services to update calibrate report and archive the Padthaway groundwater Flows Soute Transport Model	15,219
Aquaterra Consulting Pty Ltd	Professional Services relating to Murray Futures Riverine Recovery for work completed Dec 2009-March 2010	18,850



Local Government Association	Prepare the review of governance issues for Stormwater Management Authority	19,000
Sinclair Knight Merz	Professional Services in connection with a study into Riverbank Collapsing-Lower River Murray draft reporting, GIS update and develop recommendations	20,639
Adelaide Research & Innovation	Scientific Analysis of step change in SA and forward projections	26,400
KPMG	Fees and expenses incurred in providing advice to support the SA state bid for 2nd round of stormwater	32,991
<b>Over \$50 000</b>		
KPMG	Professional Services rendered in respect of DWLBC submission to the National Urban Water Action Plan	62,583
Morton Philips Pty Ltd	Identification of best practises for Natural Resource Management regimes leading to an articulated way forward for improved practises to be adopted within South Australia	76,100
KPMG	Advisory Services to assist the Office of Water Security in future demand and supply planning for South Australia's Water Security Plan	87,946
Sinclair Knight Merz	Professional Services in connection with a study into Riverbank Collapsing-detailed geotechnical investigation at five key sites	186,292
<b>TOTAL EXPENDITURE</b>		<b>\$ 927,578</b>

## Appendix F – Overseas Travel

Staff from the Department undertook the following business related overseas travel:

Number of Employees	Destination/s	Reasons for Travel	Total Cost to Agency
1	United States	Attend and speak at Australia-USA Water Sustainability and Management Forum as part of Australia Week 2010 events, and participate in water management related meetings with Californian public sector and industry representatives.	\$10,991.65
2	Canada	Meeting on broad water issues, artificial recharge, recycling, water treatment, hydro projects and wetlands management	\$28,805.40
1	Israel	Trade Mission focussing on water management, water technologies, energy efficiency, alternative energy and sustainability & Israel's International Water Conference	\$22,460.21

## Appendix G – Asbestos Management

ANNUAL ASBESTOS MANAGEMENT REPORT, 2009-10				
Category	Number of Sites		Category Description	Interpretation One or more item(s) at these sites...
	At start of year	At end of year		
1	0	0	Remove	Should be removed promptly.
2	3	3	Remove as soon as practicable	Should be scheduled for removal at a practicable time.
3	0	0	Use care during maintenance	May need removal during maintenance works.
4	0	0	Monitor condition	Asbestos present. Inspect according to legislation and policy
5	0	0	No asbestos identified / identified asbestos has been removed	(All asbestos identified as per OHS&W 4.2.10(1) has been removed)
6	0	0	Further information required	(These sites not yet categorised)

## Appendix H – Energy Efficiency Action Plan Report

	Energy Use (GJ)	GHG Emissions (Tonnes CO <sub>2</sub> )	Business Measure (FTE's)
Base Year 2000/01*	1815	560	203.3
Base Year 2000/01 (MJ/FTE)	8,928		
2009/10	2550	767	605.4
2009/10 (MJ/FTE)	4,212		
Portfolio Target 2009/10 (MJ/FTE)	7,588		
Final Portfolio Target 2014 (MJ/FTE)	6,696		

\* Data is for the former Department of Water Resources

The slight increase in consumption on last year (2008-09) was due to an increase of FTE numbers and the acquisition of two additional sites due to two sites lease expiry with nil right of renewal.

### Significant Energy Management Achievements

The Department ensured all new or renewed leases were supported with a NABERS (National Australian Built Environment Rating System) star rating from the building owner. The rating tool identifies a buildings greenhouse performance during operation on a scale 1-5 (5 being best performance). Negotiations also requested building owners provide supplementary programs and budgets to increase the star rating over the term of lease tenure.

The Department acquired surplus T5 lightings fittings from an alternate agency for install at one of the agency's key regional site.

Energy efficient preventative maintenance upgrades have been implemented within sites where applicable; smaller hot water services and the install of efficient appliances and equipment.

### Other Proposed Achievements Against the Energy Efficiency Action Plan

Continue to develop clear, consistent and credible information on energy efficient products and services that can motivate responsibility to all Departmental employees.

## **Appendix I – Greening of Government Operations**

### **Energy Management**

The Department continues to review best practice in energy saving measures and implement new and improved saving initiatives where possible and financially viable.

The Department ensured all new or renewed leases were supported with a NABERS (National Australian Built Environment Rating System) star rating from the building owner. The rating tool identifies a building's greenhouse performance during operation on a scale 1-5 (5 being best performance). Negotiations also requested building owners provide supplementary programs and budgets to increase the star rating over the term of lease tenure.

### **Water**

The Department's office accommodation sites can make minimal additional savings from those already achieved.

New tenancies negotiated at 22 King William Street had water saving initiatives completed in recent base building refurbishments. Initiatives included waterless urinals, dual flush toilets and water saving shower heads. The building owner is undertaking an upgrade of the building's air-conditioning chiller units, when implemented these will save considerable additional water and energy use.

### **Built Environment**

A waste recycle program was negotiated with the building owners at 25 King William Street. The program includes recycling of paper in general, wet waste (food scraps, tea bags organic matter) recyclable products (plastic bottles, cans milk cartons) and paper waste publications (magazines and newspapers).

## **Appendix J – Regional Impact Assessment Statements**

The Department did not prepare for publication any stand alone Regional Impact Assessment Statements for 2009-10.

## **Appendix K – Reconciliation Statement**

The Department maintains its commitment to reconciliation and working closely with Aboriginal communities and equal employment opportunities for Aboriginal people.

In 2009-10, the Department participated in Reconciliation Week in Rundle Mall; and DWLBC representatives attended the Flag Raising Ceremony during NAIDOC week, and the Closing the Gap breakfast to mark the Anniversary of National Sorry Day.

# Glossary

AHD	Australian Height Datum
ASAC	Aboriginal Statewide Advisory Committee
AWRIS	Australian Water Resource Information System
BOC	Basin Officials Committee (Murray-Darling Basin)
CRC	Cooperative Research Centres
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DEH	Department for Environment and Heritage
DWLBC	Department of Water, Land and Biodiversity Conservation
EMLR	Eastern Mt Lofty Ranges
EPA	Environment Protection Authority
GL	Gigalitre (one billion litres)
ICT	Information and Communication Technology
KPI	Key Performance Indicator
LMRIA	Lower Murray Reclaimed Irrigation Areas (Program)
MDBA	Murray-Darling Basin Authority
ML	Megalitre (one million litres)
NABERS	National Australian Built Environment Rating System
NRM	Natural Resources Management
NVC	Native Vegetation Council
NVIS	Native Vegetation Information System
NWI	National Water Initiative
OHS&IM	Occupational Health, Safety and Injury Management
PIRSA	Primary Industries and Resources SA
PWA	Prescribed Wells Area
REFLOWS	Restoring Environmental Flows to the Upper South East of South Australia (Project)
SACFS	South Australian Country Fire Service
SASP	South Australia's Strategic Plan
SEB	Significant Environmental Benefit
SES	State Emergency Service
SIPS	Safety in the Public Sector
SIS	Salt Interception Scheme
TRPV	Total Remuneration Package Value
USE	Upper South East Dryland Salinity and Flood Management (Program)
WAP	Water Allocation Plan
WMLR	Western Mt Lofty Ranges
YTD	Year to Date