

ANNUAL REPORT 2010-11

GOULBURN BROKEN CATCHMENT MANAGEMENT AUTHORITY



**GOULBURN
BROKEN**
CATCHMENT
MANAGEMENT
AUTHORITY

Ratings legend

Annual performance and long-term strategy implementation progress	Well below target (<50%)	Below target (50-79%)	On target (80-109%)	Exceeded/exceeding target (>109%)
Catchment condition	Very poor	Poor	Satisfactory	Good to excellent
Certainty of rating	Very low	Low	Medium	High
Trend	Declining	Static	Improving	Dramatically improving

For an explanation of how and why ratings are applied, see Appendix 1, 'Understanding progress and ratings'.

About this report

This report provides information on the Goulburn Broken Catchment Management Authority's performance and finances, which can be assessed against the targets of the Goulburn Broken 2010-11 to 2014-15 Corporate Plan. The Corporate Plan can be accessed online at www.gbcma.vic.gov.au.

The Goulburn Broken Catchment Management Authority (CMA) aims to provide information which is easily accessed, easily understood and relevant to readers. More detailed and scientific data can be accessed at www.gbcma.vic.gov.au.

A separate summary of this Annual Report is available at www.gbcma.vic.gov.au or from Goulburn Broken CMA offices (see back cover).

This report is prepared in accordance with all relevant Victorian legislation. This includes the requirement under the *Catchment and Land Protection Act 1994* for the Goulburn Broken CMA to submit "...a report on the condition and management of land and water resources in its region and the carrying out of its functions."

Design and print complies with Financial Reporting Direction 30A, which aims to achieve consistency and minimise costs and environmental impact across government agencies.

Feedback on this report is encouraged to help improve future annual reports. Please provide comments by 31 December 2011 to ensure consideration. A feedback form to help direct comments is available at www.gbcma.vic.gov.au.



**GOULBURN
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CATCHMENT
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Front cover:

Main photo

- September 2010 floods, looking south east from Pine Lodge over the Broken River to the Strathbogie Ranges (case study page 101). Photo: Jim Castles, Goulburn Broken CMA.

Inset photos (left to right)

- The Farm Water Program helps dairy farmers in the Shepparton Irrigation Region. Photo: Dianna Malcolm, CrazyCow (case study page 25).
- Shepparton High School students celebrate Native Fish Awareness Week and the launch of the Yorta Yorta Youth Journey (pages 18 and 95). Photo: Goulburn Broken CMA.
- Indigenous seed orchards are used to collect seeds of rare plants, such as this paper daisy, to revegetate landscapes where many of our smaller and rarer plants have been lost (page 106). Photo: Jenny Wilson, Goulburn Broken CMA.
- The Corporate Partnerships Project supported a volunteer and Chris Coburn, Upper Goulburn Landcare Network, in repairing Kinross Farm at Kinglake West after the 2009 Black Saturday fires (page 20). Photo: Janet Hagen, Hughes Creek Catchment Collaborative.

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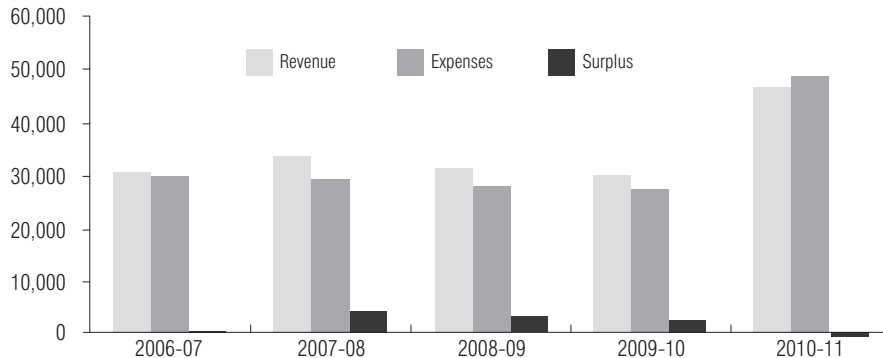


Overview

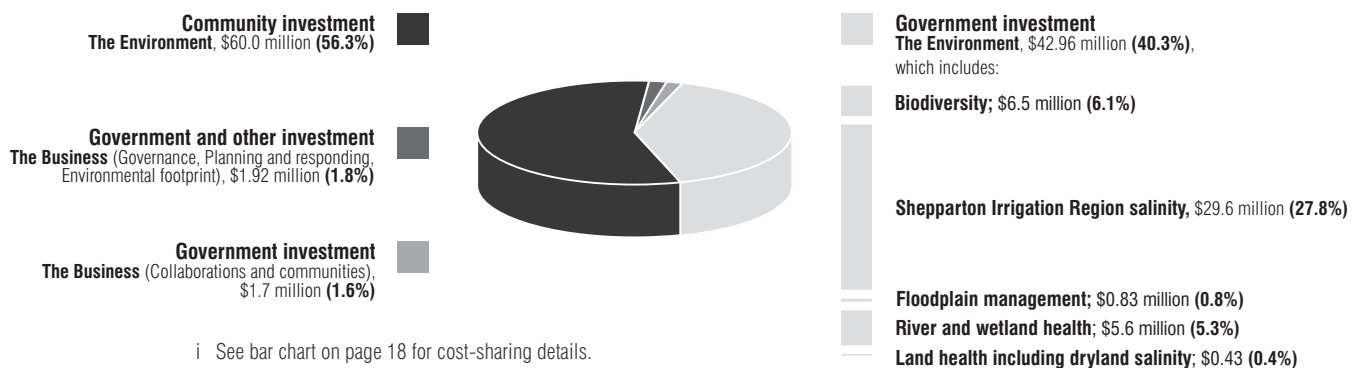
Operational highlights

	Details page
Water-use efficiency, water savings, floods and environmental water	
<ul style="list-style-type: none"> \$37.5 million for generating 18 gigalitres of water savings on irrigation farms through the Farm Water Program was announced and 1.4 gigalitres of savings were achieved by 30 June 2011 in the Shepparton Irrigation Region. 	25,86
<ul style="list-style-type: none"> Floodplain management systems developed over the decade-long dry period proved successful after being given ultimate real-life tests: Goulburn and Broken River basin streams had once in 50-year and once in 25-year floods respectively. 	101
<ul style="list-style-type: none"> Goulburn Broken CMA was allocated \$1.45 million from the Victorian Government for flood recovery in September 2010. Additional funds have been sought following subsequent flooding in the summer of 2010-11. 	71
<ul style="list-style-type: none"> 211.2 gigalitres of the Environmental Water Allocation were released over six months to: <ul style="list-style-type: none"> manage low dissolved oxygen levels in the Broken Creek and lower Goulburn River maintain low flows in the lower Goulburn River ensure success of waterbird breeding events in the Barmah-Millewa Forest. 	11,93,98
Works and incentives	
<ul style="list-style-type: none"> 1,030 incentives were provided to landholders for fencing and revegetating waterways, for whole farm plans, to improve irrigation and to install reuse systems. 	20
<ul style="list-style-type: none"> Substantial levels of native vegetation works were again achieved (1,543 hectares of remnant vegetation were fenced), up 15 per cent on 2009-10. 	14,106
<ul style="list-style-type: none"> Sixteen tenders totalling \$210,385 to protect 20 spring wetlands covering 77 hectares in the Strathbogrie Ranges were successful through a Wetland Tender supported by the Victorian Government's EcoTender program. 	109
<ul style="list-style-type: none"> 331 whole farm plans were completed across the Catchment; 89.5 per cent of the farmed land in the Shepparton Irrigation Region is now covered by whole farm plans. 	14,86
<ul style="list-style-type: none"> Results from a survey showed that Landcare groups and networks conduct activities involving more than 6,217 people and 28,101 hours of volunteer time per year. 	19
<ul style="list-style-type: none"> More than 90 per cent of 150 compliance notices requesting land managers to undertake works to manage priority pest plant and animal infestations (under the <i>Catchment and Land Protection Act 1994</i>) were enacted. 	114
Funding	

Financial summary 2006-07 to 2010-11, \$000



Goulburn Broken investment shareⁱ



Goulburn Broken profile

Goulburn Broken Catchment Management Authority

Powers and duties

The Goulburn Broken Catchment Management Authority (CMA) is a statutory authority established by the Victorian Parliament in 1997 under the *Catchment and Land Protection Act 1994* (CaLP Act). The Goulburn Broken CMA is accountable for its performance to the Minister for Environment and Climate Change, Ryan Smith MP, and the Minister for Water, Peter Walsh MP. The Goulburn Broken CMA is also empowered as an Authority under the *Water Act 1989*, being accountable for waterway management in its region to the Minister for Water, Peter Walsh MP. (See page 79 for names of all persons who were responsible during 2010-11.)

The Goulburn Broken CMA develops and implements the Goulburn Broken Regional Catchment Strategy by working with the community, all tiers of government and research and funding organisations. The Regional Catchment Strategy sets out the framework for coordinating land, water and biodiversity management in the Catchment.

The Goulburn Broken CMA focuses on private land mostly managed for agriculture and on the interface of private and public land. The Goulburn Broken CMA therefore relies on shared contributions from government and private landholders to undertake works.

The Goulburn Broken CMA's role in water is to:

- be the caretaker of river health, including managing the environment's right to water (managing the environmental water reserve) and implementing works on waterways via its operational arm
- provide waterway, regional drainage and floodplain management services.

Water storage, delivery and drainage systems are managed by our partner agency Goulburn-Murray Water (G-MW) and urban water and wastewater services are provided by another partner agency, Goulburn Valley Water.

See the 'Governance' section (page 39) for details.

Funding and staff

Goulburn Broken CMA's income for 2010-11 was \$46.6 million, derived from the Victorian and Australian Governments, regional sources and other government entities. As at 30 June 2011, 58.7 (full-time-equivalent) staff were directly employed. See the 'Human resources' section (page 33) for details.

The Goulburn Broken CMA acknowledges the traditional owners of land in the Goulburn Broken Catchment, the Yorta Yorta Nation and Taungurung Clans, and strongly respects the rich culture and intrinsic connection the traditional owners have to the land.

Our vision

Healthy, resilient and increasingly productive landscapes supporting vibrant communities.

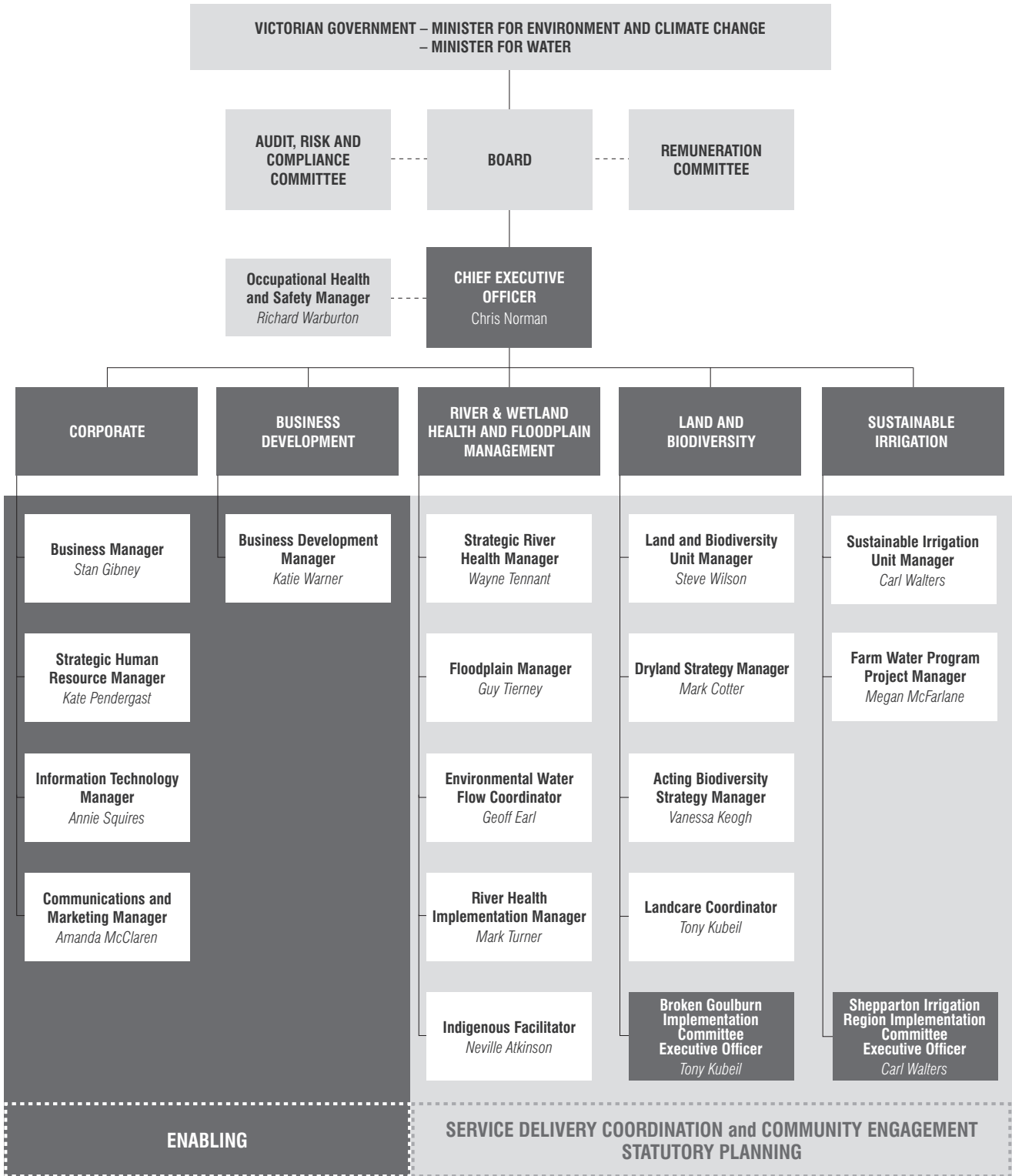
Our purpose

Through its leadership and partnerships the Goulburn Broken CMA will improve the resilience of the Catchment's people, land, biodiversity and water resources in a rapidly changing environment.

Our values and behaviours

- Environmental sustainability: we will passionately contribute to improving the environmental health of our catchment.
- Safety: we vigorously protect and look out for the safety and wellbeing of ourselves, our colleagues and our workers.
- Partnerships: we focus on teamwork and collaboration across our organisation to develop strategic alliances with partners and the regional community.
- Leadership: we have the courage to lead change and accept the responsibility to inspire and deliver positive change.
- Respect: we embrace diversity and treat everyone with fairness, respect, openness and honesty.
- Achievement, excellence and accountability: we do what we say we will do, we do it well and we take responsibility and accountability for our actions.
- Continuous learning, innovation and improvement: we are an evidence and science-based organisation and we test and challenge the status quo. We learn from our successes and failures and we are continually adapting using internal and external feedback from stakeholders and the environment. We are an agile, flexible and responsive organisation.

Goulburn Broken CMA business structure



Goulburn Broken Catchment

Landscape

The Goulburn Broken Catchment boasts a wide diversity of landscapes, including 1,800 metre snow covered alps, moist montane and dry sclerophyll forests, granitic outcrops, gentle sloping plains, box woodlands, red gum floodplains, mixed farms, and irrigated pastures and orchards.

Rainfall

Average annual rainfall varies substantially, from 1,600 millimetres in the high country of the south east to 400 millimetres in the north-west.

The Catchment yields 3,568 gigalitres, or 11 per cent, of the Murray-Darling Basin's water despite covering only two per cent of its area. A volume of 1,669 gigalitres is diverted for consumptive use.

Land use

The Catchment covers 2.4 million hectares, extending north from near the outskirts of Melbourne to the River Murray, the border with New South Wales. About 1.4 million hectares is dryland agriculture, 270,000 hectares is intensive irrigated agriculture and 800,000 hectares is public land with extensive areas for conservation.

In addition, 70,000 hectares of the Shepparton Irrigation Region extends into the adjacent North Central Catchment and is included in the Goulburn Broken CMA works program.

Environmental challenges

Major environmental challenges include degraded river health, reduced extent and quality of native vegetation, reduced water quality and quantity, dryland and irrigated salinity, loss of biodiversity, and pest plant and pest animal invasion. Fires in 2009 were a national disaster, covering 185,000 hectares (seven per cent) of the Catchment and 190 kilometres of vegetation along major rivers were burnt.

Industry

Dairying is the largest agricultural industry, controlling about 70 per cent of water entitlements. Other major industries are irrigated horticulture and viticulture, dryland grazing and cropping, timber production, thoroughbred and standardbred horses, food processing, tourism and recreation.

The annual economic activity for the Goulburn Broken Catchment was estimated to be \$9.5 billion in 2005 with the bulk of this generated in the Shepparton Irrigation Region.

Population

The Catchment is home to over 200,000 people.

Many of the Catchment's 6,000 Indigenous Australians are from two Registered Aboriginal Parties, Taungurung and Yorta Yorta.

Migrants mainly from the British Isles took up landholdings in the 1800s. Since World War Two, there has been an influx of migrants, especially in the north of the Catchment, from Italy, Greece, the Netherlands, Germany, New Zealand, Turkey, Iraq and many other countries.

The proximity to Melbourne has attracted tree changers and commuters to the south of the Catchment, resulting in a significant increase in lifestyle landholders who manage land within the Catchment.

The average age of landholders is rising because fewer family farms are handed down to younger generations and new residents are also older. New residents generally have higher incomes, higher levels of employment and are employed in urban-focused employment sectors.

There are about 900 dairy farmers in the Catchment and this number is declining by about eight per cent a year. The social adjustment for dairy farmers and flow-on effects for the rest of the Catchment are potentially significant.

The irrigation modernisation project in the Goulburn Murray Irrigation District, which includes the Shepparton Irrigation Region, is having a significant impact on irrigation farmers and the future of their businesses. The project is replacing old, leaking water delivery infrastructure with rationalised, modernised and efficient systems. This is resulting in water savings that will benefit the environment, farmers and the regional community.

Goulburn Broken Catchment



The Shepparton Irrigation Region Implementation Committee oversees delivery in part of the North Central Catchment as well as part of the Goulburn Broken Catchment.

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Disclaimer: This material may be of assistance to you but the State of Victoria and its employees do not guarantee that the map is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information contained in this map.

Maps of the Catchment showing whole farm plans achieved and onground works sites are included as Appendix 4 and Appendix 5.

Key events

2010

- July** Charters for the Broken Goulburn and Shepparton Irrigation Region Implementation Committees are updated to reflect shifts in responsibility, focusing on program and project advocacy and community feedback.
- The Biodiversity Strategy for the Goulburn Broken Catchment 2010-15 is launched by Dr Kate Auty, Commissioner for Environmental Sustainability.
- The Whroo Goldfields Conservation Management Network celebrates its third year.
- August** The Bushfire Royal Commission findings highlight impacts of fire and fire prevention on biodiversity, recommending more guidance be given to councils for resolving tensions involving clearing of roadsides.
- Goulburn Broken CMA receives:
- \$12 million from the Victorian Government for 2010- 11 for native vegetation, biodiversity and salinity control
 - \$12 million from the Australian Government to be spent over three years from 2010-11 as part of Caring for Our Country.
- The Hume Strategy for Sustainable Communities 2010-2020 is launched with one of five themes dedicated to the environment.
- More than 80 people attend the highlands and Strathbogie spring wetlands field day at Ruffy, which includes the launch of the Strathbogie Ranges Wetland Tender.
- September** \$16 million of Farm Water Program projects funded through the Northern Victoria Irrigation Renewal Project are announced.
- Floods reach major levels in the Broken River, Acheron and Rubicon Rivers.
- A workshop on refugia for Goulburn Broken's native fish under climate change is hosted by Monash University and Goulburn Broken CMA.
- October** Roger Wrigley is elected Chair of Shepparton Irrigation Committee, replacing Peter Gibson who resigned after five years but remains a member.
- The Guide to the proposed Murray-Darling Basin Plan is launched in Shepparton.
- RiverConnect, initiated by Goulburn Broken CMA in 2005 and now led by Greater Shepparton City Council, and the Broken Boosey Conservation Management Network are finalists in Parks Victoria's Environment and Sustainability category of Victoria's Regional Achievement and Community Awards. RiverConnect wins.
- November** \$22 million of Farm Water Program projects across the Goulburn-Murray Water Services Area are announced as part of the Australian Government's On-Farm Irrigation Efficiency Program.
- The Flood Victoria website goes live, led by the Goulburn Broken CMA on behalf of other CMAs, DSE and the Victorian State Emergency Service.
- Coxy's Big Break films at Tahbilk Winery, including a segment on Goulburn Broken CMA's catfish project.
- The Fishes of the Goulburn Broken Catchment booklet is launched during Native Fish Awareness Week.
- A new Victorian Government is elected, resulting in the overturning of the previous Government's policy to merge Catchment Management Authorities.
- Thirty-six Indigenous youth canoe and hike from Wangaratta to Barmah as part of the Yorta Yorta Youth Journey.
- December** Further flooding experienced throughout the Catchment adds to previous damage, resulting in Victorian Government investment of \$1.5 million through the Goulburn Broken CMA to restore damaged assets and protect public assets.
- The Australian Government calls for projects under Round 2 of the On-Farm Irrigation Efficiency Program.
- A significant blackwater event occurs in the River Murray downstream of Barmah Lake, killing hundreds of fish and forcing Murray Cray to walk out of the water.

2011

January Further unseasonal flooding (in January and February) in the upper Broken and Delatite Rivers, resulting in Victorian Government investment of \$407,000 through the Goulburn Broken CMA to restore damaged assets and protect public assets.

Goulburn Broken CMA provides an onground perspective and suggested solutions for saving water while hosting the parliamentary inquiry into the impact of the Murray-Darling Basin Plan on basin communities.

February The Victorian Government announces:

- a comprehensive review of flood warnings and emergency response efforts
- an enquiry to identify measures needed to ensure proper flood mitigation and waterways management.

Goulburn Broken CMA's Land and Biodiversity Implementation Forum is launched, attended by local government authorities, Parks Victoria, Department of Sustainability and Environment, Department of Primary Industries, Yorta Yorta Nation Aboriginal Corporation and Trust for Nature.

March The first Farm Water project is completed and the pre-qualification process for Round 2 of the Farm Water Program is called.

The Scientific and Technical Advisory Group, chaired by Professor Max Finlayson of Charles Sturt University, is established to guide development of the Restoration and Monitoring Plan for the Winton Wetlands Reserve, which covers 8,650 hectares.

Victorian Environmental Assessment Council's Remnant Native Vegetation Final Report highlights the importance of supporting landholders to build and connect habitat on private and public land.

Implementation of the three-year Caring for Our Country project, Taungurung – Weeds of National Significance – begins with the signing of a memorandum of understanding between the Goulburn Broken CMA and the Taungurung Clans Aboriginal Corporation and the appointment of a Taungurung person to supervise and help coordinate works on Country.

The Ken Sampson Fairley Leadership Scholarship is awarded to Goulburn Broken CMA staff member Amanda McClaren.

The Board holds a strategic planning workshop, involving key partners.

Fifty-four stakeholders from a wide range of backgrounds attend a Goulburn Broken CMA community engagement workshop.

April Goulburn Broken CMA staff and community members participate in Murray-Darling Basin Authority's Demonstration Reach workshop.

Victorian Government offers the Goulburn Broken CMA \$350,000 to run a Flood Employment Program, and the Australian Government offers \$50,000 for environmental recovery projects.

May Three hundred and three irrigators' projects across the Goulburn Broken, North Central and North East Catchments prequalify for Round 2 of the Farm Water Program.

Thirty-one landholders covering 201 hectares of wetlands submit bids under the Wetland Tender project.

June The Flood Employment Program is launched as part of a floods works initiative.

Goulburn Broken CMA hosts a series of eight morning teas with local government and Landcare to celebrate World Environment Day around the theme, 'There's a lot happening in our backyard'.

The Goulburn Broken CMA 2009-10 Annual Report receives 'silver' from the Australasian Reporting Awards.

Chair's review



I am pleased to present the Goulburn Broken Catchment Management Authority's 2010-11 Annual Report.

This was a year of many challenges, with ongoing drought ended by four major spring and summer floods, uncertainty with water reform, the Murray-Darling Basin Authority's Basin Plan, locusts and emerging mice problems.

The Authority expects a resurgence of the dairy, grain and meat industries following improved commodity prices and the likelihood of full high reliability water share allocations in 2011-12, the first time since 2005-06, plus substantial volumes of water carried over from 2010-11. However, the horticulture industry is readjusting to increased market forces, including overseas competition and local factory closures.

The Goulburn Broken Catchment Management Authority's revenue increased 56 per cent to \$46.6 million in 2010-11, due largely to \$12.0 million (of the approved \$21.1 million) from the Australian Government and \$9.6 million (of the approved \$16.4 million) from the Northern Victoria Irrigation Renewal Project for the Farm Water Program, an irrigation efficiency program that the Goulburn Broken Catchment Management Authority leads on behalf of consortium partners. State Government funding was reduced by 16 per cent to \$16.7 million because of the conclusion of initiative funding from the sale of the Environmental Water Reserve in 2009-10, when \$4.2 million was received.

The new State Government decided that mergers of Catchment Management Authorities (CMAs) would not proceed, which allowed the Goulburn Broken Catchment Management Authority to immediately re-focus on engaging local communities, regional partners and external stakeholders. The forthcoming major update of the Regional Catchment Strategy (2012-18), which will focus on increasing the resilience of the Catchment's natural resources and people to natural and man-made shocks, requires listening and responding carefully to regional people.

Strategy development

Professor Kate Auty, Commissioner for Environmental Sustainability, launched the Goulburn Broken Biodiversity Strategy in July 2010, with several local politicians in attendance. The Department of Primary Industries endorsed the Goulburn Broken Invasive Plants and Animals Strategy in October 2010.

The Goulburn Broken Catchment Management Authority has started the development of a Climate Change Integration Strategy, which will be critical in guiding how impacts of climate change will be integrated into Goulburn Broken CMA programs, how the Authority will reduce its own carbon footprint, and how the Authority will engage in the emerging carbon market to benefit the environment.

The Goulburn Broken Catchment Management Authority developed a position paper on the impact of potential sustainable diversion limits on the Catchment, in preparation for the release of the Murray-Darling Basin Authority's Basin Plan, which has been useful in discussions with State

and Commonwealth politicians and local stakeholders. The Basin Plan will drive significant change in the Catchment in the face of a changing climate, helping to meet environmental needs while supporting regional growth.

The Hume Strategy for Sustainable Communities 2010-2020, which will guide regional development across North East Victoria, was launched in August 2010. The Goulburn Broken Catchment Management Authority built significant project initiatives into this Strategy and has been an active member in the Environment and Land Use Planning Committees. The Authority will also be involved in the Hume Regional Growth Plan, which will be instigated in 2011-12, to ensure that environmental perspectives and land use planning opportunities are integrated.

The Goulburn Broken Catchment Management Authority also contributed to development of environment strategies for the Benalla Rural City, Campaspe Shire, City of Greater Shepparton, Mansfield Shire and Strathbogie Shire Councils.

Community engagement

The Authority's Chief Executive Officer led a statewide review of community reference committee models implemented across Victoria since the Catchment Management Authorities were created in 1997, which will contribute to a Goulburn Broken Community Engagement Plan. This Plan will also be informed by outcomes from a community engagement forum held in March 2011, which attracted 54 representatives of Implementation Committees, Landcare, Local Government, DPI, Department of Sustainability and Environment, Trust for Nature, Parks Victoria, Goulburn-Murray Water (G-MW), Country Women's Association (CWA), and the primary industry and education sectors.

The extensive 12-month review of the Authority's approach to community engagement, including the roles of the Broken Goulburn and Shepparton Irrigation Region Implementation Committees will result in an emphasis on whole-of-Catchment engagement in 2011-12, based on delivering key programs Catchment-wide. The Goulburn Broken CMA will operate differently, with renewed emphasis from community reference groups, Landcare and conservation management networks, providing input into programs and projects.

Flood recovery

The floods from September to February were an opportunity for the Goulburn Broken Catchment Management Authority to display the value of previous flood management planning and mitigation strategies implemented through local government. The Goulburn Broken Catchment Management Authority provided flood intelligence, including the likely impact of potential flood levels on urban communities, to the Victorian State Emergency Services. It should not be lost that floods are a natural event and the Goulburn Broken Catchment Management Authority has done everything possible to balance the risks of expansion of urban development impacting on the floodplains of the Catchment. The Goulburn Broken Catchment Management Authority was allocated \$1.84 million from the State and Commonwealth Governments to restore waterways following the floods and subsequent works were well received by landholders.

Future challenges

The future will continue to provide many challenges, not the least being the re-emergence of shallow watertables and salinity across the Catchment. From September 2010 until June 2011, the watertable across the Shepparton Irrigation Region rose by an average of 1.2 metres, after falling 4 metres over the previous 10 years. This will require significant reinvestment in infrastructure, revegetation and planning.

The outcomes of the Comrie Review on flood warnings and the Environment and Natural Resource Committee Inquiry on waterway and levee management will clearly shape the Catchment Management Authorities' future role in flood management and will be important pieces of work in developing Government policy.

Critical partnerships underpin success

The significant commitment and support of partner delivery agencies is critical to improvements in the environmental health of the Catchment. I wish to particularly acknowledge the contribution of the Implementation Committees, Landcare, landholders, Department of Primary Industries, Department of Sustainability and Environment, Goulburn-Murray Water, Goulburn Valley Water, Northern Victorian Irrigation Renewal Project, Victorian Farmers Federation, Trust for Nature, Australian Government agencies, Local Government, and community groups and organisations.

I thank my fellow Board Directors for their ongoing commitment and support to this Catchment, particularly those who will be stepping down early in 2011-12 as part of the Government's biannual renewal process. I also wish to acknowledge the efforts of Mr Chris Norman, Chief Executive Officer, and the staff of the Authority for their passion, customer focus, and contribution to the widespread works being undertaken to protect and enhance the Goulburn Broken Catchment.

Report of operations

In accordance with the *Financial Management Act 1994*, I am pleased to present the Report of Operations for the Goulburn Broken Catchment Management Authority for the year ending 30 June 2011.



Peter F Ryan

Chair

24 August 2011

Chief Executive Officer's report



It is with great pleasure that I release the 2010-11 Annual Report on the Goulburn Broken Catchment Management Authority's financial results, organisational activities and achievements.

The Goulburn Broken Catchment Management Authority budget grew by 56 per cent, due to \$21.6 million (of the approved \$37.5 million) for the Farm Water

Program (received on behalf of consortium partners) and new funding for flood recovery and Landcare through the Recycling for Recovery program. This is despite a \$400,000 reduction in core State funding, including a further reduction of \$200,000 in March 2011. In July 2011, the Australian Government announced additional funding of \$25.1 million to the Goulburn Broken Catchment Management Authority-led consortium under Round 2 of the Farm Water Program. We hope to attract further investment through Regional Development Australia for projects aligned with the Hume Regional Strategy and by piloting National projects.

New strategic directions and community engagement

The Goulburn Broken Catchment Management Authority developed a strategic framework in 2010-11 to clearly describe how the Regional Catchment Strategy aligns to its program outcomes and delivery priorities, leading to the establishment of three delivery Programs (Sustainable Irrigation, Land and Biodiversity, and River and Wetland Health and Floodplain Management), which are in turn supported by our Corporate Program.

The Goulburn Broken Catchment Management Authority reviewed community engagement structures to improve community input into strategy development and program delivery. The Goulburn Broken Catchment Management Authority will implement a new engagement model, including a regular Goulburn Broken Catchment community forum, to provide two-way feedback on local issues.

These changes will renew the focus on whole-of-Catchment, rather than arbitrarily separating dryland and irrigation areas. With this change, I reinforce my thanks to our Implementation Committees for guiding delivery over the past 14 years. Thank you in particular to Peter Gibson, who stepped down after more than five years as the Chair of the Shepparton Irrigation Region Implementation Committee.

In 2011-12, the Goulburn Broken Catchment Management Authority will initiate development of a new 2012-2018 Regional Catchment Strategy that will be designed to increase resilience of environmental assets and people that support them. The organisation will also undertake a National Organisational Excellence Review, with the organisation's own environmental footprint earmarked for improvement. A focus on vehicles, energy consumption and paper use next year will further reduce carbon emissions.

Traditional owner activities

Several new activities undertaken with our Traditional Owner Groups in 2010-11 included a Yorta Yorta Youth Journey, which the Goulburn Broken Catchment Management Authority funded and supported with the Yorta Yorta Nation Aboriginal Corporation. One of the aims of the Journey was to strengthen the connection to Country through transferring biodiversity and natural resource management knowledge held by Elders. The Goulburn Broken Catchment Management Authority also employed a Taungurung person to coordinate a Working on Country project in the south of the Catchment and to support the fire recovery effort.

Nature's challenges of biblical proportions

The Catchment withstood the remnants of a long drought, followed by flooding rains and then widespread impacts from locust and mice plagues.

Floods from September to February provided an amazing contrast to the previous 13 years of drought. Not only did the size and frequency of these floods test the preparation of the Goulburn Broken Catchment Management Authority in providing flood intelligence to the Victorian State Emergency Services (the Incident Controller), it reinforced the value of previous flood planning with local government and the strong stance the Catchment Management Authority has taken in controlling development on the floodplain.

In the last half of 2010-11, our focus was on restoring natural waterway assets impacted by the floods. Significant works completed on the Broken, Howqua, Jamieson and Delatite Rivers and on Holland and Ryans Creeks to date include installation of 77 structures to protect 27.4 kilometres of bank and rehabilitation of 6.1 kilometres of stream frontage. A flood employment program in the western and upper Catchment areas, including those previously impacted by the bushfires, will be implemented in 2011-12.

An unfortunate consequence of the floods was the widespread blackwater event that impacted on fish and freshwater crayfish in the Murray River downstream of Barmah Lake and in the Goulburn River downstream from Shepparton. The Murray-Darling Basin Authority, Department of Sustainability and Environment, Goulburn Broken Catchment Management Authority and other stakeholders established monitoring and limited alternative flow strategies. Recent surveys on the Goulburn River following the floods and blackwater event show that Silver Perch, Golden Perch and Trout Cod have recovered, although Carp have also bred prolifically.

Environmental water responsibilities grow

The Environmental Water Allocation was well utilised in 2010-11, with 211.2 gigalitres released to manage dissolved oxygen in the Broken Creek and the lower Goulburn River, maintain low flows in the lower Goulburn River, and for waterbird breeding in the Barmah-Millewa Forest.

In 2010-11, I chaired the Barmah-Millewa Icon Site Committee of Management, which is made up of agencies and communities from both sides of the Murray River. Approximately 85 per cent of Barmah Forest was watered by a large natural flood in September 2010. Environmental water was then applied to extend the benefits of this flooding, resulting in significant bird and fish breeding. The Barmah-Millewa Environmental Water Management Plan and Condition Monitoring Plan were also completed, which were significant milestones in the ongoing management of this amazing piece of nature in the north of the Catchment.

The Goulburn Broken Catchment Management Authority continued to build relationships with the Commonwealth Environmental Water Holder (CEWH), resulting in a proposal to fully utilise the CEWH's environmental water entitlements in the Goulburn River and Broken Creek during 2011-12. This will provide ideal summer, autumn, and winter flows following the valuable 2010 spring and summer flows, maximising environmental recovery after five years of consistent very low flows.

Land and biodiversity

Although the past year saw several challenges in the delivery of our Land Health and Biodiversity programs, reflecting service delivery partners' changing priorities, agencies are now interacting and delivery is back on track. The benefits of integrating partner-agency resources is illustrated in several woodland-focused projects, including the Landcare-led revegetation of large areas near Benalla, Department of Primary Industries' delivery of landholder grants to fence more than 200 hectares of woodlands, and Department of Sustainability and Environment's delivery of the market-based instrument project, Bush Returns.

The new and innovative Strathbogie Ranges Wetland Tender, which focuses on spring wetlands, was a highlight this year, with 16 successful bids totalling \$210,385. Spring wetlands are rare, usually covering less than five hectares, and interested landholders included traditional farmers who had not previously participated in our incentive programs.

The Victorian Government Fire Recovery Program funded the second season of weed control works along waterways burnt during the 2009 fires, especially the upper reaches of the Yea, Acheron and Steavenson Rivers and King Parrot, Sunday, Dry and Strath Creeks. Weeds have been reduced to quantities well below what was present before the fire, enabling native plants to successfully regenerate along stream banks.

The Goulburn Broken Catchment Management Authority led a major evaluation of communities and the 2009 Black Saturday Bushfires, which found that communities, especially community organisations and networks such as Landcare, play a vital role in recovering from natural disasters.

Sustainable irrigation

The Goulburn Broken Catchment Management Authority successfully led the Farm Water Program, with 149 irrigation projects across the Goulburn Murray Irrigation District funded from approved investment of \$21.1 million through Round 1 of the Commonwealth Government's On-Farm Irrigation Efficiency Program and \$16.4 million from the Northern Victorian Irrigation Renewal Project. Feedback from Round 1 was very positive and 18 gigalitres of water savings will be generated from the region's irrigators, with many indicating they are pleasantly surprised by on-farm water savings already being generated. The Goulburn Broken Catchment Management Authority and Department of Primary Industries, our program deliverer, both undertook extensive evaluations that contributed to our Round 2 submission, which generated over 303 pre-qualification applications worth some \$98 million.

The Farm Water Program was complemented by the Sustainable Irrigation Program, which delivered 256 whole farm plans in 2010-11, up 21 per cent on 2009-10, bringing the total coverage by whole farm plans to 89.5 per cent of the Shepparton Irrigation Region. Improvements to irrigation systems also implemented covered 20,050 hectares, an increase of 44 per cent on 2009-10.

Staff changes

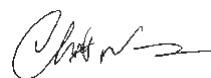
Despite the uncertainty of mergers early in 2010-11, the Goulburn Broken Catchment Management Authority retained all staff. All four Goulburn Broken Catchment Management Authority Programs were reviewed to ensure that we have the capability and right mix of expertise. With the growing responsibility of leading the Farm Water Program, the Goulburn Broken Catchment Management Authority increased its skills in irrigation design and contract management. Several staff were also seconded from DPI to assist with environmental wetland planning.

The greater extended Catchment Management Authority family also grew, with eight staff welcoming new babies into their lives.

Partnerships drive success

I reinforce that the Goulburn Broken Catchment Management Authority cannot achieve anything without the efforts and commitment of our Catchment community, two Implementation Committees, 93 community natural resource management groups, five conservation management networks and numerous agency partners, which are listed on the back cover of this annual report. I thank you all personally for your valued contribution to the Catchment.

The commitment and direction provided by our Board has also been much appreciated, as has been the leadership of our Chair Peter Ryan, who has been of great personal support.



Chris Norman
Chief Executive Officer

Annual scorecards

Most output targets listed in the Corporate Plan were achieved in 2010-11. There were few works targets that were not met (see Appendix 3, Outputs - detailed list of achievements, on page 116).

Summary scorecards below and on the following page are explained in more detail in individual investment area sections of this report.

Appendix 1, Understanding progress and ratings (page 82), describes outputs, targets, investment areas and integration, and ratings.

Investment and gross output performances in investment areas

Investment area ⁱ	Investment ⁱⁱ (including partnership funds)				2010-11 performance ^{iv} (outputs)	Details page
	2008-09 \$000	2009-10 \$000	2010-11 \$000	Forecast ⁱⁱⁱ 2011-12 \$000		
The Environment						
1 Sustainable irrigation						84
1a Shepparton Irrigation Region salinity	11,720	8,607	29,631	45,786	On target	84
2 River and wetland health and floodplain management						92
2a Environmental flows	<i>Combined investment of 2a, 2b & 2c: 13,630</i>	<i>Combined investment of 2a, 2b & 2c: 12,398^v</i>	<i>Combined investment of 2a, 2b & 2c: 5,599</i>	<i>Combined investment of 2a, 2b & 2c: 4,059</i>	On target	92
2b Riparian and instream habitat and channel form					On target	92
2c Water quality (nutrients) in rivers and streams					On target	92
2d Floodplain management	440	614	832	362	On target	99
3 Land and biodiversity						102
3a Biodiversity ^{vi}	1,390	2,512	6,467	4,065	On target	103
3b Land health including dryland salinity ^{vii}	1,800	1,821	433	379	On target	110
3c Invasive plants and animals ^{viii}	1,100	0	0	0	On target	113
The Business (Corporate)						
A Governance ^x	1,519	2,025	1,918	1,651	On target	39
B Collaborations and communities	3,480	1,928	1,700	710	On target	17
C Planning and responding	Part of A				On target	26
D Human resources ^x	4,346	4,402	6,436	6,153	On target	33
E Environmental footprint ^x	15	6	18	25	On target	31

i Investment areas and integration between them are described in Appendix 1 on page 82.

ii Investment figures include funding to partners.

iii Based on advice at August 2011.

iv Performance ratings are based on outputs achieved as listed under investment area details in this annual report. Targets are determined by considering levels of government funding as listed in the Corporate Plan only (government funds or funds from other sources arriving after the Corporate Plan was finalised are not considered within these targets). Outputs are described in Appendix 1 on page 82 under 'Annual performance'.

v Includes \$3.5 million for fire recovery for 2009-10. From 2010-11, investment shown is for core funding. Prior to 2010-11, figures also included investment from short-term, opportunistic sources such as the Drought Employment Program and proceeds from the sale of part of the Water Quality Reserve.

vi The real increase in Biodiversity investment in 2010-11 was marginal: the apparent increase is due to internal reclassification and reallocations. (Actual investment in Biodiversity was increased marginally by increased Commonwealth funding.)

vii Investment in Land health including dryland salinity has not declined in 2010-11, it has been presented differently: DSE now funds DPI directly (not through the Goulburn Broken CMA) and other internal reclassifications and reallocations were made.

viii Funding to DPI Biosecurity Victoria's Invasive Pests program are not included in the regional investment process for 2009-10 and 2010-11.

ix Amount restated in 2009-10 to include Planning and responding investment, ensuring consistency with 2010-11 reporting.

x These are costs rather than investment. Costs are embedded within other investment areas.

Aggregate output performance across all investment areas in 2010-11

Output ⁱ	Achieved	Target ⁱⁱ	Performance	
			% achieved	Rating
Remnant vegetation fenced, hectares	1,543	1,179	131	Exceeded target
Long-term conservation agreements, hectares ⁱⁱⁱ	434	311	139	Exceeded target
Indigenous revegetation planted, hectares	1,383	1,619	85	On target
Irrigation drains built, kilometres	2.5	3.5	71	Below target
Reuse systems installed, numbers	7	0	note ^{iv}	
Irrigation systems improved in SIR, hectares	20,050	10,080	199	Exceeded target
Groundwater pumps installed, numbers	0	4	0	Well Below target
Weeds treated, hectares	424	508	83	On target
Rabbits and foxes treated, hectares	58,628	1,150	note ^v	
River or stream erosion controlled, kilometres	146	62	238	Exceeded target
Fishway structures installed and barriers modified, numbers	0	0	-	
Aquatic habitat works ^{vi} , numbers	0	1	0	note ^{vi}
Threatened species projects, numbers	36	36	100	On target
Whole farm plans prepared, numbers	331	190	174	Exceeded target

i Outputs shown in this table are derived from the more detailed set on page 116. Outputs are described in Appendix 1 on page 82 under 'Annual performance'.

Detailed outputs relating to each investment area are listed in sections devoted to each investment area throughout this report.

ii Targets are determined by considering levels of government funding as listed in the Corporate Plan only (government funds or funds from other sources arriving after the Corporate Plan was finalised are not considered within these targets).

iii These are shown as 'Binding management agreements' in the detailed outputs on page 116.

iv The target for 2010-11 was 0 as incentives are no longer offered while the Farm Water Program is running.

v Fox control outputs were achieved through the Broken Boosey and Whroo Goldfields CMNs and the 2010-11 target is low because additional funding was obtained during the year, after the Corporate Plan was finalised.

vi These are shown as 'Significantly Enhanced Aquatic Refugia' in the outputs table on page 116. Works rescheduled to 2011-12 because of 2010-11 floods (planning for these works was completed).

Descriptions of output performance

Media communications (listed in Appendix 6), case studies (on pages 25, 101 and 109) and investment area details (Appendix 2) describe actions undertaken in 2010-11 and illustrate integration between programs and between government agencies, community organisations and individuals.

Outputs achieved 2002-03 to 2010-11 and forecast 2011-12

The following graphs show that onground action achievement levels fluctuate significantly from year-to-year, usually according to available government funding and seasonal conditions.

The 13-year long dry period until 2010 resulted in greater emphasis on water-use efficiency actions, such as installing reuse systems and improving irrigation systems, which are consistent with directions set in 1989 (see pages 23 and 84) and 1996 (see page 91) that were targeted at achieving salinity benefits and water quality.

Investment in native vegetation has increased significantly over the years, and the Goulburn Broken CMA has delivered when increased funding has been available, such as through the Drought Employment Program from 2006-07 to 2008-09.

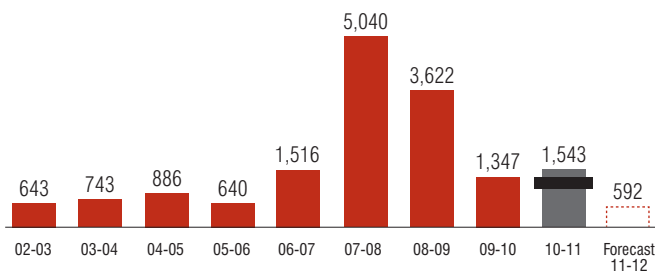
Whole farm plans ensure that works at the farm scale are consistent with the needs of the Catchment, as described in whole-of-Catchment strategies and plans. A total of 89.5 per cent of the farmed area in the Shepparton Irrigation Region is covered by whole farm plans, which are critical to capitalise on investment in modernising irrigation delivery infrastructure through the Northern Victoria Irrigation Renewal Project (see page 23 and Appendix 4 map, page 118).

Outputs shown in the following graphs are derived from the more detailed set of outputs on page 116. Outputs, including limitations in measuring them, are described in Appendix 1 on page 82.

Note on forecast targets:

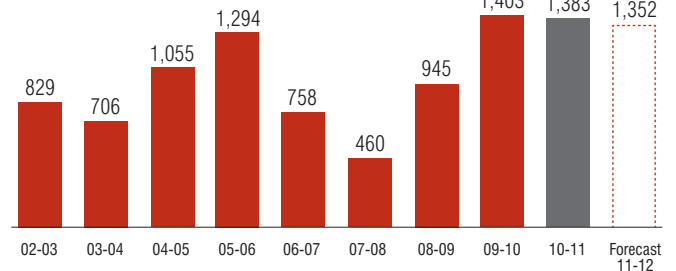
Forecast output targets are generally lower than what was achieved previously because they are based on indicative rather than actual funding received. Forecasts are based on figures cited in the Corporate Plan for the forthcoming financial year and do not take into account new funding opportunities that may arise.

Remnant vegetation fenced, ha



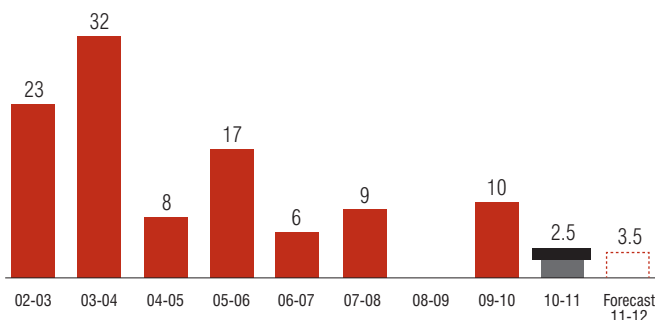
Significant areas of remnants were again fenced through environmental grants and other projects. (High achievements of 2007-08 and 2008-09 were largely due to Drought Employment Program funding, which finished in 2008-09.)

Indigenous revegetation (planted), ha



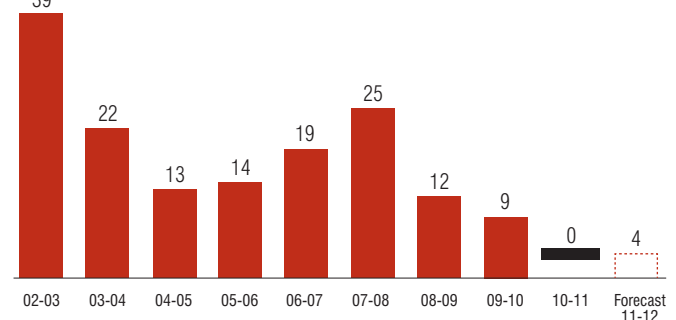
Substantial areas were revegetated in 2010-11, with the shortfall against target primarily due to delays in sourcing tubestock in the Shepparton Irrigation Region.

Irrigation drains built, km



While core actions of the 1990 salinity plan continue to be implemented (page 84), reduced funding in 2010-11 resulted in decreased achievements. Installation of three groundwater pumps started in 2010-11, with completion due by January 2012.

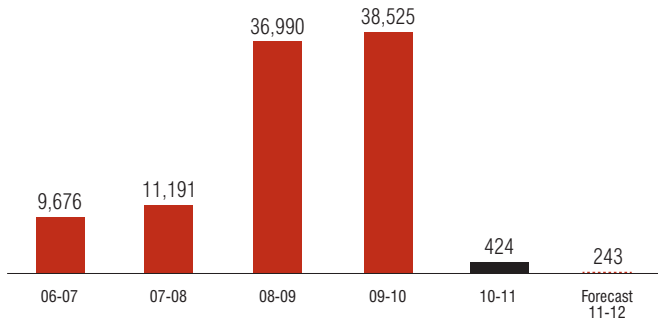
Groundwater pumps installed, numbers



Legend

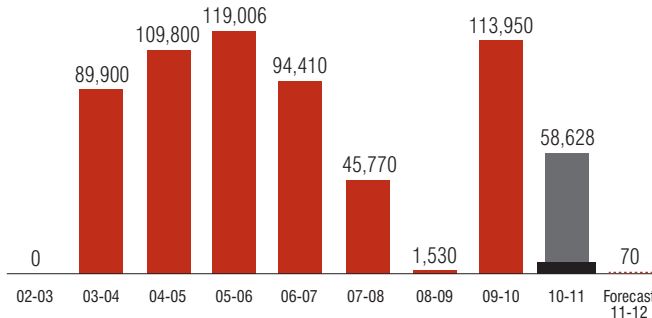
■ Target for 2010-11

Weeds treated, ha



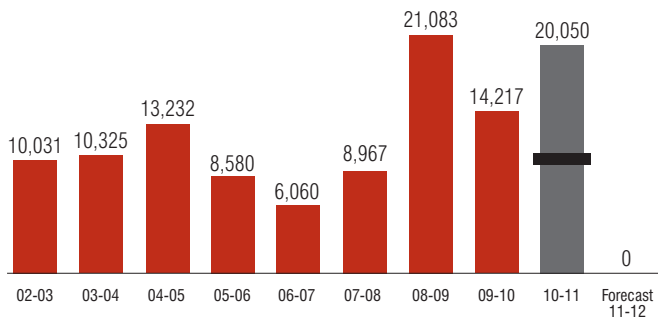
From 2010-11, the chart only shows achievements funded through the Goulburn Broken CMA. (DPI Biosecurity Victoria's Pest Plant and Animal Program was removed from the Goulburn Broken CMA's investment process from 2009-10, although the Program's achievements were reported in Goulburn Broken CMA's 2009-10 Annual Report.)

Rabbits and foxes treated, ha



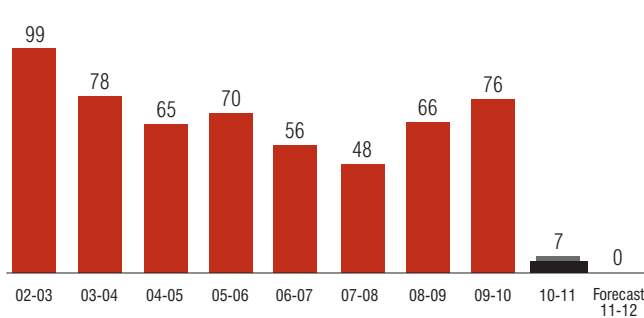
Whroo Goldfields and Broken Boosey Conservation Management Networks are major contributors to fox control (page 22). (Funding for CMNs arrived after Corporate Plan targets were set.)

Irrigation systems improved in Shepparton Irrigation Region, ha



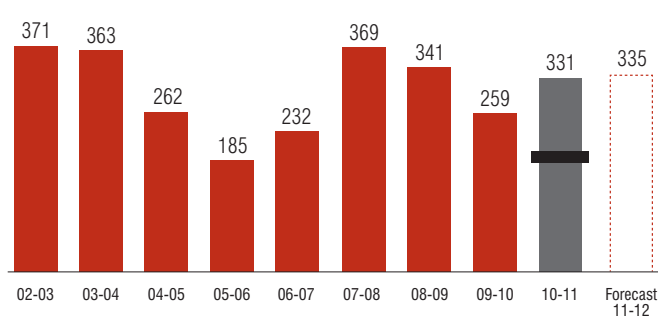
Significant achievement due to significant new funding for the Farm Water Program from the Commonwealth's On-Farm Irrigation Efficiency Program and the Northern Victoria Irrigation Renewal Project (page 84). (This funding arrived after the Corporate Plan target was set and while targets for 2011-12 are not yet set, strong interest has been shown.)

Reuse systems installed, numbers



Investment in reuse systems recommenced via the Farm Water Program (page 84). Targets for 2011-12 not yet set, although strong interest has been shown.

Whole farm plans prepared, numbers



Strong demand across the dryland and Shepparton Irrigation Region, with demand expected to be strong again in 2011-12.

Legend

■ Target for 2010-11

Long-term scorecard

There are significant differences between investment areas in the progress of implementing long-term strategies and in changes to the condition of the Goulburn Broken Catchment (see table below). This is often because there are vast differences between investment areas in methods used to assess Catchment condition and to set targets in long-term strategies, reflecting the infancy of natural resource management as a discipline.

Ratings in the following table are explained in the details sections of each investment area (as referenced in the right hand column). Appendix 1, Understanding progress and ratings (page 82), discusses issues related to measuring progress.

Goulburn Broken CMA strategies generally have a long-term focus, which encourages integration and the achievement of multiple benefits from single actions. This helps to smooth out the impacts of fluctuating government commitment to different investment areas.

Long-term strategy implementation progress and Catchment condition

Investment area	Long-term strategy implementation progress ⁱ			Catchment condition ⁱ			Details page
	Strategy life ⁱⁱ	Progress	Gov't funding trend	1990 ⁱⁱⁱ	2011	Trend	
The Environment							
1 Sustainable irrigation							84
1a Shepparton Irrigation Region salinity	1990-2020	On target	●	Poor	Good	●	84
2 River and wetland health and floodplain management							89
2a Environmental flows	2004-present	On target	●	Poor	Good	↑	92
2b Riparian and instream habitat and channel form	2005-2015	Below target	●	Poor	Satisfactory ^{iv}	↑	94
2c Water quality (nutrients) in rivers and streams	1996-2016	Exceeding target	●	Very poor	Satisfactory ^{iv}	↑	96
2d Floodplain management	2002-2012	Exceeding target	●	Very poor	Poor	↑	99
3 Land and biodiversity							102
3a Biodiversity	2000-2030 2004-2007	On target	●	Poor	Poor	●	102
3b Land health including dryland salinity	1990-2050	Below target	↓	Poor	Satisfactory	↑	103
3c Invasive plants and animals	2001-present	Below target	●	Poor	Poor	●	113
The Business (Corporate)							
A Governance	Rolling 5 year Corporate Plan	On target	●	Poor	Satisfactory	↑	39
B Collaborations and communities	2005-present	On target	↓	Poor	Satisfactory	↑	17
C Planning and responding	Rolling 5 year Corporate Plan	On target	●	Poor	Satisfactory	↑	26
D Human resources	various	On target	●	Satisfactory	Good	↑	33
E Environmental footprint	2007-11	On target	●	Very poor ^v	Poor ^v	↑	31

i Strategy implementation progress considers evidence of outputs completed against targets, including onground works and tasks to improve management systems. Catchment condition ratings consider evidence of environmental or business condition, social and economic health and management systems. Catchment condition encompasses more than just biophysical condition. Appendix 1 describes the ratings methodology in more detail.

ii Strategies vary in formality and comprehensiveness. Refer to detailed sections for lists of strategies. Strategy life includes time taken for capacity building tasks to be completed in medium term (usually three-five years) and for 'The Environment' investment areas, time taken for changes to be achieved over the long-term (usually 10-50 years).

iii The rating of Catchment condition in 1990 was determined using our understanding in 2011 of the situation in 1990. 1990 is a useful reference year because it was about this time that integrated catchment management began and sufficient time has elapsed since for meaningful questions about long-term change to be asked.

iv More than one third of the Catchment's woody vegetation (including riparian vegetation) was burnt by 2006 and 2009 fires (long-term impacts are unknown).

v Ratings are about the condition of the organisation (with respect to its environmental footprint) rather than the condition of the Catchment.

Collaborations and communities

Compiled by Chris Norman, Rod McLennan, Tony Kubeil, Peter Howard, Carl Walters, Amanda McClaren, Rhiannon Apted, Neville Atkinson, Wayne Tennant, Karen Brisbane, Mark Cotter, Terry Batey, Kate Pendergast, Katie Warner, Sharon Lewis and Megan McFarlane.

Annual performance, long-term strategy implementation progress and Catchment condition change

Decision focus ⁱ	Examples of evidence used to inform decisions	1990 ⁱⁱ	Certainty of rating	2011	Certainty of rating	Trend
2010-11 performance	Outputs (against targets set as a result of funds received) Corporate Plan KPIs (see page 52)	n.a.		On target	Medium	n.a.
Long-term strategy implementation progress	Outputs (tasks scheduled to be completed in various engagement strategies)	n.a.		On target	Medium	↓ ⁱⁱⁱ
Catchment condition ^{iv}	Surveys of strengths of relationships Memoranda of understanding Implementation Committee charters Uniform regulations developed Joint forums Shared staffing Funds from various sources contributing to natural resource management Corporate memory Management systems	Poor	Low	Satisfactory	Low	↑

i See Appendix 1 for notes on the analytical framework (page 82), including an explanation of the decision focus and ratings.

ii Ratings for 1990 have been determined using our understanding in 2011 of what the situation was like in 1990.

iii Assumed to parallel government funding trend.

iv The reference point is taken to be the time just prior to European settlement, at which time the Catchment is considered to have been in excellent condition.

Background

Most natural resource management works are undertaken by individuals and organisations other than the Goulburn Broken CMA.

Regional strategies including the Goulburn Broken CMA Communication and Marketing Strategy 2010-2011 define stakeholders and the roles and responsibilities of the Goulburn Broken CMA.

The regional community invests about one dollar for every dollar of government funding despite continuing climatic challenges (see graph on next page). Influencing how others invest is therefore a very important activity for the Goulburn Broken CMA.

Stakeholders targeted include private landholders, Victorian and Australian Government funders, government agencies, corporate and philanthropic funders, local government, community groups (especially Landcare groups), individuals and politicians.

Nurturing relationships and partnerships can be challenging due to an extremely diverse population of 200,000 people including 6,000 Indigenous Australians. See also 'Goulburn Broken profile' on page 4.

This section includes case studies that show how the Goulburn Broken CMA is committed to stakeholder involvement, integration of disciplines and onground works.

Government investment, \$000

2008-09	2009-10	2010-11	2011-12 ⁱ	Trend
3,480	1,928	1,700	710	↓

i Forecast based on funding advice at August 2011.

Major strategic references

- Goulburn Broken Community Landcare Support Strategy
- Shepparton Irrigation Region Implementation Committee Communications Strategy
- Communication and Marketing Strategy 2010-2011
- Dryland Landscape Strategy Community Document 2009-2011
- Various memoranda of understanding

Stakeholder engagement via Implementation Committees

Implementation Committees have primary responsibility for Goulburn Broken CMA's relationship with local government and the community, particularly Landcare networks and groups, and other community environmental groups. This requires communication, engagement and collaboration. Implementation Committees have been a major conduit between the community and the Goulburn Broken CMA and its Board of Directors. (See map on page 5 for areas covered by the Implementation Committees.)

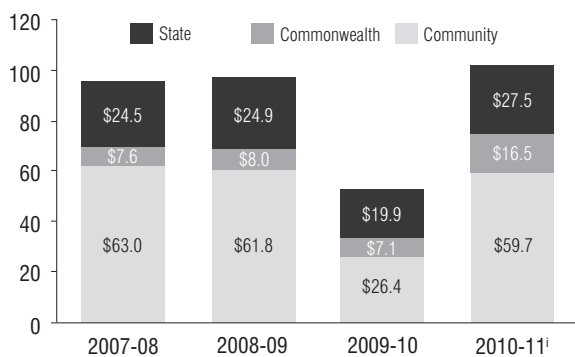
Ten skills-based community representatives on the Broken Goulburn Implementation Committee (BGIC) and eight on the Shepparton Irrigation Region Implementation Committee (SIRIC) are appointed by the Board. The Implementation Committees were established under the provisions of section 122C of the *Water Act 1989* and section 19J of the *Catchment and Land Protection Act 1994*. Each Implementation Committee receives administrative and strategic support from non-voting members of partner agencies Goulburn Broken CMA, DSE, DPI and G-MW.

Implementation Committees oversee an annual integrated natural resource management program within their areas and have an agreed Charter with the Board for responsibilities such as:

- providing advice to the Board on Goulburn Broken CMA policy, the Regional Catchment Strategy and resource management objectives
- contributing to development of locally meaningful sub-catchment strategies which communicate natural resource management issues and priorities
- providing comment on proposed works programs (based on the Regional Catchment Strategy)
- monitoring implementation performance of investment plans and works programs, which are delivered by the Goulburn Broken CMA and partner organisations notably DPI, DSE, G-MW, Landcare, natural resource based industries and local government. (See the quantities of work undertaken in the 'Outputs – detailed list of achievements' table on page 116.)

SIRIC also coordinates implementation of the Goulburn Broken Regional Catchment Strategy in the part of the Shepparton Irrigation Region (SIR) that is in the North Central Catchment.

Major contributions to natural resource management, \$million



ⁱ Community investment increased significantly because of major contributions from the State (\$10.7 million via NVIRP) and the Commonwealth (\$12.0 million) in the Farm Water Program.

Indigenous engagement in 2010-11

The Goulburn Broken CMA and Taungurung Clans Aboriginal Corporation established a memorandum of understanding to target Blackberry and Willow (Weeds of National Significance) across Taungurung Country in the upper Catchment. The three-year program supports a partnership between the Goulburn Broken CMA and the Taungurung community to Work on Country and to prepare Traditional Owner signage, which facilitates traditional ecological knowledge between Elders and the wider community.

The Goulburn Broken CMA, Yorta Yorta Nation Aboriginal Corporation (YYNAC) and RAD.COM (a local charity established to meet the needs of disadvantaged families in the Shepparton Region) established a Yorta Yorta Work Team as part of the Working on Country program. The program:

- supported students while training in conservation and land management
- propagated regional provenance seed with support from the Dookie Seedbank and controlled weeds at Yielima (as part of the Yielima Master Plan developed by YYNAC and Goulburn Broken CMA)
- fenced and revegetated across Yorta Yorta Country as part of the Sand Ridge Woodland (Caring for Our Country) project and the Dookie Biolinks Program.

The Goulburn Broken CMA and YYNAC are also preparing a corporate plan and Yenbena Business Model (business prospectus). The Model identifies how the Yenbena Registered Training organisation will train Indigenous people in natural resource management, make them job-ready, and employ them. The Model includes developing an enterprise that provides permanent employment for Working on Country in work teams.

Traditional ecological knowledge exchange between Yorta Yorta and the wider community is also being promoted through signage projects and the Yorta Yorta Language project. Two young Yorta Yorta women have been employed to add Yorta Yorta language and traditional ecological knowledge to a database based on the Miromaa language program. More than 900 entries have been made to Miromaa, including words, sentences, images and audio files.

The Goulburn Broken CMA and the Yorta Yorta conducted the five-day Yorta Yorta Youth Journey in November, which involved a hiking and canoeing tour across Country from the Warby Ranges to the Barmah Lakes. Yorta Yorta Elders, Goulburn Broken CMA and partner agency staff worked with 25 Indigenous secondary school students from across Yorta Yorta Country on natural resource management, leadership skill training and traditional ecological and cultural knowledge.

Goulburn Broken CMA Landcare Awards

More than 140 Landcarers attended the 2010-11 Goulburn Broken Landcare Awards in July 2011, celebrating 25 years of Landcare in the Goulburn Broken Catchment and the release of the third annual (2009-10) Goulburn Broken Landcare report card. Award winners were:

- Sustainable Farming: Broken Catchment Landcare Network (Gecko CLaN), for leading the improvement and promotion of pasture cropping
- Education: Shepparton High School, for building nest boxes, with support from Shepparton Bunnings
- Community Landcare Group: Koyuga Kanyapella Landcare Group, for running a suite of projects, including Adopt-a-roadside, planting Tongala walking track and working with local primary schools
- Community Landcare Network: Upper Goulburn Landcare Network, for extensive onground fire recovery works, including contributions to fencing of 195 kilometres, planting 17,600 native plants, erecting 49 nest boxes and removing 157 hectares of weeds
- Hubert Miller Perpetual Trophy: Russell Wealands, for tireless efforts in driving the Yea Wetlands project.

Long-term strategies implementation progress

Goulburn Broken CMA's collaborative agreements and strategies for engaging stakeholders are many and varied, reflecting the diversity of the natural resource management business. These were reviewed during 2010-11 and discussed with the community at a workshop in March 2011.

As part of implementing the Goulburn Broken CMA's Communication and Marketing Strategy 2010-2011, all program sub-strategies are including a community engagement action plan that is aligned to the Goulburn Broken CMA's over-arching strategy.

Most strategies are being implemented on schedule and are regularly reviewed and collaborative agreements are honoured.

Catchment condition

Government and regional communities' objectives are clearly aligned:

- for every dollar invested by government, regional communities (including landholders) contribute more than one dollar, despite the continuing climatic challenges.
- Goulburn Broken regional community has a reputation for delivering onground changes to improve its natural resources, which reflects the strength of relationships between its many and varied individuals and organisations.
- Landcare groups and networks involve more than 6,217 people and 28,101 hours of volunteer time in natural resource management activities every year (these figures are from just the 38 per cent of groups and networks that responded to a survey in 2009-10).

Goulburn Broken CMA's Municipal Catchment Coordinator is supported by municipalities in the SIR. Uniform regulatory backing has been developed across municipalities in SIR: Uniform Planning Regulations and New Irrigation Development Guidelines.

Despite the devastating impact of the Black Saturday bushfires on the Catchment and its people, the community is taking action to recover, with Landcare and local government a significant influence.

The post-fire recovery has highlighted deficiencies in accountabilities and commitments to preserve native vegetation. This needs to be urgently addressed to prevent continued large-scale unauthorised clearing.

Following the 2010-11 floods, discussions between the Goulburn Broken CMA and local government authorities have strengthened the partnership approach to flood response. A flood damage report has been prepared.

The Goulburn Broken CMA has been represented in steering committees and consultation sessions during development of local government authorities' environment strategies.

Corporate memory at all levels is a major problem because of rapid staff turnover, consistent with the challenge that has emerged in the western world since 1990 in all jurisdictions: better information systems and legacy documents are being built to inform new staff quickly so they can more readily respond to needs.

What's next?

Renewed engagement with stakeholders will be part of developing the 2012-18 Regional Catchment Strategy. The Goulburn Broken CMA is implementing a strategic planning framework in 2011-12 that will align strategy, investment, staffing structures and community engagement approaches. The two Implementation Committees will be replaced by broader community engagement approaches to support the three delivery programs and a whole-of-Catchment community forum to advise the CEO and Management. This model assumes that community engagement is undertaken primarily to provide advice to program delivery and is not directly overseeing implementation. The three programs will document their existing community engagement structures, including the number and breadth of community participants.

An additional whole-of-Catchment community forum will be established, based on existing community Landcare groups, other community bodies and any gaps in community input, functionally and geographically. This forum will meet with the Goulburn Broken CMA two to three times per year, acting as a barometer for community natural resource management issues, advising on local priorities, and providing input into Regional Catchment Strategy and sub-strategy development. The program structures will be important for overseeing development and delivery of sub-strategies.

Partnerships with Indigenous communities will be maintained and enhanced and the wider community's understanding of traditional ecological knowledge will be expanded. Areas of high cultural value will be protected in partnership with Traditional Owners.

Victorian Environmental Assessment Council's River Red Gum Forests Investigation Final Report 2008 is being implemented. Joint management arrangements between the Yorta Yorta people and Parks Victoria have been established following proclamation of national parks along the Goulburn and Murray Rivers, and Goulburn Broken CMA is actively involved in management.

The community will be provided opportunities to be involved in large scale river restoration projects and demonstration initiatives.

The following actions from the Goulburn Broken CMA's Communication and Marketing Strategy 2010-2011 are priorities for 2011-12:

- develop and implement the Community Engagement Action Plan with Program Managers
- develop social media and online approaches to help engage the community in updating the Regional Catchment Strategy
- continue to raise awareness throughout the community and the media of the Goulburn Broken CMA as the peak body in natural resource management
- continue to share stories and celebrate successes across the Catchment.

Liaison with government funders will continue to ensure:

- local community priorities are considered in programs such as Caring for Our Country
- the impact of potential gaps in funding for regional priorities are minimised.

The Landcare Corporate Partnership Facilitator role will continue for a further 12 months, through DSE funding. The aim of the position is to develop connections between corporate organisations and Landcare networks in the North East, North Central and Goulburn Broken CMA regions. Corporate involvement can be through skills based support, volunteering or financial support.

Summary of relationships between Goulburn Broken CMA, Implementation Committees and partners

Multiple agency, community groups, individuals	<p>Memoranda of Understanding (MoU)</p> <ul style="list-style-type: none"> - 2006-07 Catchment Partnership MoU between Goulburn Broken CMA, G-MW, DSE, DPI and EPA Victoria - 2010 Irrigation Drainage and Water Quality MoU between Goulburn Broken CMA, DSE, EPA Victoria, North Central CMA, DPI and G-MW. <p>Multiple agency and community partnership projects include:</p> <ul style="list-style-type: none"> - RiverConnect in Shepparton-Mooroopna area (initiated by Goulburn Broken CMA in 2005) - Farm Water Program Consortium, which includes Goulburn Broken, North Central and North East CMAs, Northern Victorian Irrigation Renewal Project, DSE, DPI, G-MW, Dairy Australia, Murray Dairy and Northern Victorian Irrigators Inc. - Wetlands Infrastructure Connections Working Group - The Mitchell Connection in the south (formerly known as the Mount Piper Biolink) - Landscape Logic multi-disciplinary research project (led by University of Tasmania) - Northern Victoria Irrigation Renewal Project - Rural Extension Program (pest plants and pest animals) - Various fire recovery committees - Community Environment Fire Recovery and cross agency Coordinating Committee - Multi-regional Woodlands Project (funded by the Australian Government's Caring for Our Country program; partners are North Central and North East CMAs, Trust for Nature and landowners) - Wetland Tender (Goulburn Broken CMA's River Health and Land and Biodiversity programs, DSE (Arthur Rylah Institute Head office and regional), Trust for Nature, Hughes Creek Catchment Cooperative and Strathbogie Tablelands Landcare Group, Strathbogie Ranges Conservation Management Network). Landcare members were trained to score the Index of Wetland Condition. - Land and Biodiversity Implementation Forum (Parks Victoria, DSE, DPI, local government authorities, Trust for Nature, Landcare Networks, Conservation Management Networks) - Local Government Biodiversity Reference Group (eight local government authorities, Goulburn Broken CMA, DSE, VicRoads, G-MW).
Individuals	<p>Extension advice and 1,030 incentives were provided to land managers via Goulburn Broken CMA staff and agency partners 2010-11.</p>
Indigenous people	<p>Goulburn Broken CMA's Indigenous facilitator (appointed in 2005), two cultural heritage advisers (appointed in 2009) and the Landscape Restoration Officer foster trust between wider and Indigenous communities and protect Traditional Owners' values through:</p> <ul style="list-style-type: none"> - liaison with planners and works supervisors - supporting Yorta Yorta people and Taungurung people in cultural awareness and engagement - cultural heritage planning in partnership with other agencies (NVIRP and local government) and Registered Aboriginal Parities (RAPs) - developing joint works programs for Indigenous employment and training with organisations such as Yorta Yorta Nation Aboriginal Corporation, Goulburn Ovens Institute of TAFE, and Parks Victoria. <p>Yorta Yorta Joint Body Agreement signed by Victorian Government in 2004 is a land and water joint management agreement of designated areas of Yorta Yorta Country of the Goulburn and Murray Rivers.</p> <p>Memorandum of Understanding between Goulburn Broken CMA and Taungurung Clans for a joint Caring for Our Country project focused on Weeds of National Significance in the Upper Goulburn River catchment.</p>
Landcare and community groups	<p>Landcare support is a priority for the Goulburn Broken CMA.</p> <p>Implementation of Community Landcare Support Strategy through 93 groups, including 73 active Landcare groups, 6 networks, 14 natural resource management groups (climate change, biological farming, sustainable farming, etc), and 5 Conservation Management Networks (CMNs), including the new Strathbogie Ranges CMN and Lower Goulburn CMN. CMNs differ from Landcare in that they focus on biodiversity conservation, particular vegetation types or species, and across tenure. Programs address these through targeted education campaigns providing tailored support to landholders.</p>
Landcare and corporate partners	<p>The Landcare Corporate Partnership project began in 2009 as a pilot for the State Landcare Team's Volunteer Recruitment Initiative and is now permanently operating across Victoria. The project's aim is to increase volunteerism from the corporate sector and to link corporates with natural resource management projects within the catchment management authorities, in particular with Landcare networks. Corporate bodies such as Shepparton, Bayswater and Pakenham Bunnings, National Australia Bank and Computer Share – E Tree have contributed funds to onground projects. The volunteer-base has increased through staff from Bunnings stores in Shepparton, Bayswater and Pakenham, Department of Planning and Community Development, Bayswater Secondary College, Shepparton High School and National Australia Bank. Foundational tools have been built to help Landcare networks approach corporate bodies and to access skills from local business such as accounting firms.</p>
Local government	<p>Three local governments (City of Greater Shepparton, Moira and Campaspe Shires) contribute to, and are represented by, the municipal catchment coordinator on Shepparton Irrigation Region Implementation Committee and various forums. Each municipality is briefed annually. These local governments participate in Goulburn Broken CMA's Municipal Coordination Committee.</p> <p>Broken Goulburn Implementation Committee representatives attend local government meetings as needed (Benalla, Mansfield, Mitchell, Murrindindi and Strathbogie Shire Councils).</p> <p>Goulburn Broken CMA staff are participating in steering committees or consultation sessions as the Benalla Rural City, Campaspe Shire, Greater Shepparton City, Mansfield Shire and Strathbogie Shire Councils develop their environment strategies.</p> <p>Goulburn Broken CMA is a key member of two bodies that include representatives from all councils in the Catchment: the Local Government Biodiversity Reference Group and the Goulburn Broken Greenhouse Alliance.</p>
Department of Primary Industries	<p>Represented on both Implementation Committees and provide technical support.</p> <p>Service agreement and partnership Memorandum of Understanding with Goulburn Broken CMA.</p> <p>Deliver extension and grant assessment services such as whole farm planning and associated environmental management grants, and pest plant and pest animal activities and research.</p> <p>Critical partner in engagement of and delivery of Farm Water, Fire Recovery and Salt and Sediments Programs to landholders.</p>
Goulburn-Murray Water	<p>Technical and program support.</p> <p>Represented at all SIRIC and Goulburn Broken CMA Partnership Team meetings and as required at BGIC meetings.</p> <p>Service agreement and partnership Memorandum of Understanding with Goulburn Broken CMA.</p> <p>Project manage and deliver most Surface and Sub-surface Water Management Program projects in the SIR including research.</p> <p>Goulburn Broken CMA is represented on G-MW's SIR water services committee.</p>
Department of Sustainability and Environment – Regional	<p>Service agreement and partnership Memorandum of Understanding with Goulburn Broken CMA.</p> <p>Manage extensive areas of public land in the Catchment, especially forests in the upper Goulburn and the Barmah Wetlands.</p> <p>Deliver projects that assist threatened species and communities (see Biodiversity section 3a page 103).</p> <p>Deliver Bush Returns Woodland Tender, a market-based incentive approach to secure over 1,500 hectares of woodland sites under management agreements which includes working with Goulburn Broken CMA's Indigenous facilitator to increase awareness of cultural heritage sites in the woodland landscape.</p> <p>Represented on: Shepparton Irrigation Region and Broken Goulburn Implementation Committees, Goulburn Broken CMA Partnership Team, Senior Partners, NVIRP Wetlands Infrastructure Connections Working Group, Goulburn Broken CMA's Farm Water Program Working Group, Goulburn Broken CMA's Dry Inflow Contingency Planning Group, Goulburn Broken CMA Water Quality Group, and on steering committees: Bush Returns, Strathbogie Ranges CMN executive Committee, Backbone to Biolinks, Wetland Tender; Multi-regional Woodlands, Caring for Our Country's Sustainable Farming Practices; Benalla Rural City Environmental Strategy Project; Dookie Seedbank, Threatened Species Project Prioritisation Protocols; Climate Change Integration Strategy; CMN Statewide Advisory Group; Murrindindi Shire Council Environment Advisory Committee; Victorian State Landcare Team; Land and Biodiversity Implementation Forum; Greenhouse Alliance.</p> <p>Provide technical support: Bush Returns, Wetland Tender, DPI grants, Land and Biodiversity Implementation Forum.</p>
Department of Sustainability and Environment – Head Office and Australian Government	<p>Goulburn Broken CMA's Regional Investment Plan funding proposal is developed for DSE and Goulburn Broken CMA's Caring for our Country projects are developed for the Australian Government.</p> <p>Collaborate with DSE programs such as River Health, Irrigation and Landcare.</p> <p>Provide templates and assessment tools such as EnSYM for Goulburn Broken CMA to deliver Wetland Tender.</p>
Other groups	<p>Implementation committees develop close relationships as needs arise during research, planning and implementation with many organisations, including Parks Victoria, Victorian Farmers Federation, Goulburn Valley Environment Group, and other local environment groups (Mansfield, Alexandra, Broadford), Goulburn Valley Water, Murrindindi Climate Network, Goulburn Valley Greenhouse Alliance, Kinglake Action Network and Development Organisation, Trust for Nature.</p>

Broken Goulburn Implementation Committee

Compiled by Tony Kubeil, Rhiannon Apted, Mark Cotter, Dave Smith and Rod McLennan

Committee members: David Dore (Benalla; Chair), David Scott (Mansfield), Craig Madden (Avenel), Sandy MacKenzie (from May 2010; Avenel), Heather Ingpen (Ancona), Margaret Hatton (Kilmore), Rita Seethaler (Taggerty), Sally Abbott Smith (Glenburn), Bill Wells (Strathbogie).

Background

The Dryland region has a diverse range of land-use, from traditional grazing, cropping and dairying operations to boutique farming enterprises such as olive groves and vineyards with farm-gate sales and cafes, to farm forestry and 'tree changers' managing land for conservation.

The Dryland Landscape Strategy was ratified by the Goulburn Broken CMA Board in February 2009. It was developed in response to growing acceptance that current rates of positive land-use change would be insufficient to halt declining Catchment health. The primary focus is partner communication and engagement, Landcare support and development, cross-program integration of Goulburn Broken CMA projects, community involvement in the development and delivery of projects, and adapting both the business and the community to changes in scale, incorporating landscape-scale action. The Land and Biodiversity Program oversees delivery of the Strategy.

The Land and Biodiversity Program supports the Broken Goulburn Implementation Committee (BGIC), which operates within the Dryland region of the Goulburn Broken Catchment (see map on page 5). BGIC's first full year of operation was 2009-10. BGIC's key role is to support communication, engage, consult and provide advice on developing and delivering the Dryland Landscape Strategy and other Goulburn Broken CMA strategies, primarily through the Land and Biodiversity Program.

BGIC supports Goulburn Broken CMA programs by establishing partnerships with local government (Benalla Rural City and Mansfield, Mitchell, Murrindindi and Strathbogie Shires), Landcare and other community-based natural resource management groups, and the wider Catchment community.

Since the Dryland Landscape Strategy was published, there has been a considerable shift in the operating environment resulting in less autonomy for the Goulburn Broken CMA to set and fund regional priorities. This made delivery of various components of this Strategy difficult. In early 2010-11, the Strategy was realigned to complement Goulburn Broken CMA's Biodiversity Strategy.

2010-11 performance

BGIC supported the delivery of a \$10.3 million program in the Dryland region, funded by the Victorian and Australian Governments through programs including Caring for Our Country, the Natural Resources Investment Program, and Second Generation Landcare. BGIC's role in delivery is to communicate with partners and promote cross-agency coordination. BGIC recognises the major efforts of DSE, DPI, Landcare and Goulburn Broken CMA operational teams (Waterways and Land and Biodiversity) in delivering on-ground outputs.

BGIC continued to help staff and the Goulburn Broken CMA Board connect with communities and other organisations in the upper and middle parts of the Catchment.

Collaborations and communities

BGIC raised a number of policy issues with the Board and stayed in close contact with staff members to ensure that the Goulburn Broken CMA is working closely with community-based natural resource management organisations so that the benefits of limited available dollars are maximised.

BGIC promoted a closer working relationship with new community movements such as climate networks and sustainability groups and initiated the use of Landcare networks as 'sub-agents' of Goulburn Broken CMA in delivering grants for on-ground works.

BGIC kept community groups informed about funding opportunities and fostered collaborative approaches to community bids. As part of this process, we provided a community voice on Goulburn Broken CMA's Regional Investment Plan which was submitted to the State.

BGIC also helped present developments in pasture cropping in the context of the benefits it can offer for catchment health, and provided opportunities for the community to increase its understanding of the issues surrounding water regulation and water reform.

BGIC advised the Goulburn Broken CMA on developing a communication and engagement plan and delivered parts of it. BGIC sought and communicated feedback from Landcare groups, local communities and local government to Goulburn Broken CMA's Board and program managers.

Local government

BGIC continued to foster a close working relationship with its six local governments, meeting with five councils in the past 12 months. BGIC raised issues and opportunities with councillors and senior staff, raising the profile of the Goulburn Broken CMA and the potential for partnerships to develop and deliver mutually beneficial natural resource management projects.

Partnerships with Parks Victoria and local government were strengthened through active engagement in Whroo-Goldfields CMN activities.

A bus trip around the ongoing fire recovery works with the Mitchell Shire council helped to document the lessons learnt with emergency recovery work.

Communication

BGIC provides consistent reports to the Goulburn Broken CMA Board, advising of current issues and opinions of the committee regarding CMA direction.

A stakeholder engagement plan was prepared, focusing on Landcare support, reinvigoration of the Regional Weed Extension Program and Community information regarding the CMA mergers.

Works and operations

Excellent results were achieved, with some works being favoured at the expense of others due to the direction of onground staff to the priority need, the Fire and Flood Recovery Programs. Outputs delivered in the BGIC area are shown in Appendix 3 (page 116).

Conservation Management Networks

Threatened species recovery activities included a Golden Sun Moth Breakfast to raise awareness of this federally listed species, attracting 45 participants from the community, Landcare, Local Government and Parks Victoria.

Fox control was coordinated across 42,000 hectares of private and public land, involving Parks Victoria and the Puckapunyal Army base. Ten kilograms of indigenous seed was collected, in collaboration with the Dookie Indigenous Seedbank, for direct seeding. Signage for Doctors Swamp near Murchison was completed, in partnership with Parks Victoria.

In April, a two-day bus tour around the Broken Boosey, Longwood Plains and Whroo Goldfields CMN regions included CMN members from Wedderburn and DSE staff and managers.

Landcare Networks' highlights

Fire Recovery is very well managed by both the Upper Goulburn and South West Goulburn Landcare Networks. This year more than 200 landowners attended training courses and more than 1,000 volunteers were involved in onground works such as nest box construction, fencing, weed control and revegetation.

The pasture cropping project as a low input grazing management system that delivers catchment benefits via increased ground cover and improved water quality continued to be rolled out.

Looking ahead, the Gecko CLaN (Catchment and Landcare Network) are keen to spread the word across the Catchment via peer learning techniques. There is substantial potential for this in areas that have had water regimes altered through the modernisation project.

What's next?

As the Dryland Landscape Strategy continues to be implemented, opportunities to communicate and engage partners in the delivery of targets will be sought. This will be done through the renewed Program structure of the Goulburn Broken CMA (succeeding the previous BGIC role), with the Land and Biodiversity Program engaging a range of existing and new community groups. This approach will align with the Catchment-wide Communications and Marketing Strategy, the SIRIC Communications Plan and will form a major component of the newly formed Goulburn Broken CMA Land and Biodiversity Team's communication and engagement work.

Opportunities for Landcare to participate in project delivery will be provided and corporate involvement will be increased.

Implementation of the Fire Recovery Program will include a continuation of works.

Links with local government will continue to be improved.

The level of community engagement as a service for the Goulburn Broken CMA Board and its programs will be increased.

Mitchell Connection will be looking at opportunities for focus group discussions to overcome natural resource management communication barriers.

In partnership with North East and North Central CMAs and DSE, Goulburn Broken CMA will maintain support for the B register project, the development of the five-year rolling review with the Murray-Darling Basin Authority, and will respond to the draft Murray-Darling Basin Plan, which will be released in late 2011.

Shepparton Irrigation Region Implementation Committee

Compiled by Carl Walters, Peter Howard, Rachael Spokes, Terry Batey, James Burkitt, Sam Green, Neil McLeod, Jen Pagon, Jim Castles and Rod McLennan

Committee members: Roger Wrigley (Chair), Helen Reynolds (Deputy Chair), Allen Canobie, Steve Farrell, Peter Gibson, John Gray, Nick Ryan, John Wenske (resigned October 2010), Terry Batey (DPI), James Burkitt (G-MW), Rob Steel (DSE). Carl Walters (Goulburn Broken CMA) is the Executive Officer.

Background

The Shepparton Irrigation Region Implementation Committee (SIRIC), appointed by the Goulburn Broken CMA, comprises well-credentialed and diverse community representatives with a wide knowledge-base and circle of influence. Non-voting partner agency representatives provide advice.

SIRIC oversees Farm and Environment, Groundwater and Salt Management, Waterways and Surface Water Management Programs, which are supported by working groups, comprising SIRIC and 24 other community members and DPI, G-MW, Water Services Committees, the Victorian Farmers Federation, local government and environment group representatives.

SIRIC is supported by an executive team, with agency staff providing advice through a technical support committee, the working groups and individual project teams.

The prime functions of SIRIC are to support and communicate implementation of Regional Catchment Strategy priorities and provide feedback on the community's view. SIRIC engages the community and assists with a program of works delivered by government agencies and landholders. SIRIC has strong community links and partnerships with other agencies, local, Victorian and Australian Governments, Landcare and the Goulburn Murray Landcare Network, which were fostered by local area planning.

After chairing SIRIC for four years, Peter Gibson returned to the committee as a community representative and Roger Wrigley and Helen Reynolds were elected Chair and Deputy Chair.

2010-11 performance

The drought continued to impact on works programs, especially the Environmental and Surface Water, Groundwater and Salt Management programs. Heavy spring rains and frequent storms through summer compounded issues, causing significant floods.

Funding cuts limited the Groundwater and Salt and Surface Water Management Programs, while Farm Program activities increased as landholders strive to use water more efficiently (by integrating with the irrigation modernisation program) and to find water savings (via the Farm Water Program).

The Victorian and Australian Governments approved \$49 million to the Sustainable Irrigation Program through initiatives such as Healthy Waterways, Large Scale River Restoration, Linking Farms, Salinity Infrastructure, Sustainable Irrigated Agricultural Land Management Victorian Water Trust – Water Smart Farms, Caring for Our Country and Natural Resources Investment Program. Of these funds, \$37.5 million was for the Goulburn Broken CMA-led consortium's Farm Water Program, with the Australian Government approving \$21.1 million under its On-Farm Irrigation Efficiency Program and the Victorian Government \$16.4 million via the Northern Victoria Irrigation Renewal Project.

Collaborations and community engagement

Foodbowl Modernisation

Through the Northern Victoria Irrigation Renewal Project (NVIRP), a \$2 billion works program is being undertaken to modernise Victoria's Foodbowl region by upgrading ageing irrigation infrastructure. An average of more than 800 gigalitres of water is being lost every year through leaks, system inefficiencies and evaporation.

Modernisation will improve efficiency and service to irrigators, recovering an estimated 225 gigalitres of lost water by 2012, with water savings to be shared equally between irrigators, the environment and Melbourne. This will underpin economic growth and regional prosperity by providing confidence for communities facing significant challenges because of the drought and uncertainty from poor communication of the draft Guide to the Murray-Darling Basin Plan and implications of sustainable diversion limits.

SIRIC has worked closely with NVIRP and other modernisation activities to ensure that water saving projects are consistent with and complementary to implementation of the Shepparton Irrigation Region Catchment Implementation Strategy (SIRCIS).

Round 1 of the Australian Government's On-Farm Irrigation Efficiency Program, locally known as the Farm Water Program, was rolled out in 2010-11, with most project contracts signed and works underway. (In July 2011, the Australian Government approved a further \$25.1 million for the Farm Water Program under Round 2.)

Irrigators, senior management and technical, environmental and implementation staff are seamlessly implementing both NVIRP and the SIRCIS by providing input into wetland watering plans, farm irrigation assessments, environmental assessments and waterway watering plans, and by supporting connection processes, and farm works. Cost-sharing agreements have been developed with NVIRP and SIRIC's Executive Officer is Goulburn Broken CMA's representative on various NVIRP Committees, including the Technical Advisory Group, the Environmental Technical Advisory Committee, and the Salinity Impact Technical Advisory Committee.

Local government

SIRIC continued to engage the Greater Shepparton City Council, Shire of Campaspe, and Moira Shire Council through meetings with each Council, council briefings, and our Municipal Catchment Coordinator Steering Committee meetings.

SIRIC supported Greater Shepparton City Council's Strengthening Basin Communities Planning component Round 2 funding bid for 'A future without Water Entitlements' project. SIRIC, Goulburn Broken CMA, DPI and G-MW provided letters of support to the Department of Planning and Community Development for the Uniform Planning Controls for Earthworks in the Shepparton Irrigation Region.

SIRIC's Municipal Catchment Coordinator developed an Evaluation Plan and Engagement Plan for the Goulburn Broken Backbone to Biolinks Project, being conducted by Moira Shire.

Other community engagement

SIRIC allocated \$19,638 of grants to schools, Landcare and community groups to undertake community education and awareness projects that increase awareness and understanding of salinity, biodiversity, water quality, pest plants and animals and climate change.

Sustainable Irrigation Program staff participated in Goulburn Broken CMA World Environment Day Morning Teas, held in the municipalities of Moira Shire, Campaspe Shire and Greater Shepparton City Council.

SIRIC supported the Goulburn Broken Landcare Network in integrating partner efforts, such as the Crouching Emu Project, which involves the Greater Shepparton City Council, Dhurringile Landcare Group, Tatura Urban Landcare Group and the Goulburn Broken CMA in planting native species on roadsides and protecting significant areas.

Works and operations

Outputs delivered in the SIRIC area are shown in Appendix 3 (page 116).

Farm and Environment Program

Refer to Appendix 2 (page 84) for data and commentary on works and operations achievements.

Environmental water management

Environmental flows in the Lower Goulburn River during December and January reduced the impact of blackwater-related low dissolved oxygen, while during February they maintained water quality and minimum flows. Environmental flows released from the Goulburn system in November and the Broken Creek throughout summer helped manage blackwater in the Murray River, and in May and June they helped deliver flows to the Lower Lakes.

Broken Boosey Conservation Management Network (CMN)

The Broken Boosey CMN was an Environment and Sustainability Award finalist at Victoria's Regional Achievement and Community Awards, receiving a Certificate of Achievement from Parks Victoria at a ceremony at Ballarat in October.

The CMN gained a \$3,000 Healthy Parks Healthy People grant and purchased a Mobile Biodiversity Education Unit trailer to use for Biodiversity Education Days. Six Biodiversity Education Days held at primary and secondary schools across the Broken Boosey CMN area involved 450 students. The fifth Broken Boosey CMN calendar was produced, the Biodiversity Celebration Day in Tungamah attracted 65 landholders, and 50 hectares of direct seeding were planned.

The CMN gained \$20,000 to treat prohibited weeds along the Broken Boosey State Park, following up work undertaken three years ago. Weeds were also mapped for future treatment. Fox control was coordinated across 17,000 hectares of private and public land in the Broken Boosey CMN area.

A partnership with VicRoads was established to identify native vegetation offsets in high priority CMN regions.

Threatened species recovery activities included collection of seed and propagation and planting of 1,500 seedlings for three threatened flora species in the Broken Boosey State Park and surrounding private land. The seedlings were planted along the Broken Boosey State Park (Parks Victoria) and in the Kinnairds Wetlands (Moira Shire).

The Broken Boosey CMN will strengthen its focus on the Winton Wetlands area to add value to work being overseen by the committee of management.

Planning and responding (includes research and development)

The SIRCIS review was completed and is awaiting publication. A summary document provides an update since the review was completed, reflecting rapid changes in water management over the past two years.

SIRIC continues to be involved in several external processes:

- major input to NVIRP continues (see 'Collaborations and communities' above)
- the Surface and Groundwater and Salt Management programs provided input to the Draft Victorian Irrigation Drainage Strategic Direction 2010-2015
- input into the development of the Murray-Darling Basin draft plan and its processes
- input was provided into the Victorian Environmental Assessment Council Remnant Native Vegetation Discussion Paper.

The Goulburn Broken CMA provided a response to each of the three respective Planning Scheme Amendments for the Campaspe, Greater Shepparton and Moira Regional Rural Land Use Strategy.

The Uniform Planning Controls for Earthworks Regulations review is in progress, being undertaken with the three Shepparton Irrigation Region municipalities, and a discussion and options paper on Earthwork Controls in the Shepparton Irrigation Region was produced. The Incorporated Document 'Earthworks Controls in the Shire of Campaspe, City of Greater Shepparton and Moira Shire August 2010' was also prepared.

SIRIC provided input into various local government plans, including Greater Shepparton City Council's Integrated Planning for a Sustainable Shepparton Community Strategy, Shire of Campaspe's and Moira Shire's Strengthening Victoria's Foodbowl: Adaptation to reduced water availability in a changing climate project, Greater Shepparton City Council's RiverConnect Strategic Plan and Moira Shire Council's Numurkah Lake Concept Plan.

SIRIC provided a response to the impact of key State and Commonwealth Government reforms including: the first draft of the Murray-Darling Basin Plan and its proposed changes, Victoria's white paper on land and biodiversity at a time of climate change, the Australian Government's On-Farm Irrigation Efficiency Program and the Victorian Irrigation Drainage Program review.

The Salt and Water Balance Project, which aims to establish strategies and tools that mitigate salinity by managing shallow groundwater in the Shepparton Irrigation Region in response to variable climate and reduced recharge from modernised irrigation infrastructure, was progressed.

The request to amend Murray-Darling Basin Authority's Basin Salinity Management Strategy Register accountable action for the Shepparton Salinity Management Plan, with the removal of winter disposal from private groundwater pumps, was completed.

Groundwater salinity threat trigger levels at the Millewa Nature Reserve were exceeded due to wetter conditions and the Groundwater and Salt Management Program responded by investigating and trialling public salinity control pumping.

G-MW responded to 117 whole farm plan certification applications to align with natural resource management plans and planning controls.

What's next?

The SIRCIS review and associated summaries are due to be published.

NVIRP's water saving projects must continue to complement implementation of the SIRCIS, especially whole farm planning, irrigation drainage, the Farm Water Program, and connection of the irrigation supply system to wetlands for delivering environmental water allocations. SIRIC will therefore continue to work closely with DSE, DPI, G-MW, the North Central CMA, and NVIRP, especially its Technical Advisory Group, Technical Advisory Committee (Environmental Impacts Committee), Salt Technical Advisory Committee, Environmental Connections Working Group and modernisation coordination committees. This includes efforts to attract further Australian Government On-Farm Irrigation Efficiency Program funds to the Goulburn Murray Irrigation District for the Farm Water Program.

SIRIC and partner organisations were heavily involved in developing the Victorian Irrigation Drainage Program Strategic Direction 2010-2015 and will continue to implement regional programs under this revised direction.

SIRIC will cease in 2011-12, with support to the Sustainable Irrigation Program coming from a renewed community engagement approach. New fund sources will be sought to deliver the irrigation program following completion of the Water Smart farms initiative (30 June 2011) and the Linking Farms and Catchment Programs to Modernisation initiative (20 June 2012). Further pressure is being placed on funding as State and Commonwealth

Governments meet election commitments and fund large emergency response packages to Queensland, New South Wales and northern Victoria. Ways to build up budgets again to implement the SIRCIS will be investigated through a better narrative on the benefits of whole farm planning (environmental benefits, landholder decision-making, water savings) and a renewed level of interest in the requirement for appropriate drainage to protect the area from water logging and the return of high watertables.

The Sustainable Irrigation Program will continue to:

- work with the DPI Farm Services Victoria group during its restructure process to ensure that the SIRCIS program continues to be delivered
- raise the profile of implications of a return to high watertables from the return to wetter conditions
- support and promote the coordinated roll out of Round 2 of the Farm Water Program, subject to funding announcements, and will work with the Commonwealth to develop funding options under Round Three
- be involved in a renewed Catchment-wide push for improved community engagement to build on its excellent track record, which is recognised nationally and internationally for its inclusiveness.

Case study

Farmer improves surface irrigation under the Farm Water Program

by Chris Nicholson and David Lawler

Stanhope farmer Andrew Hipwell is ready to sow 34 hectares, one-third lucerne and two-thirds permanent pasture, in an area that previously had small bays, no drainage reuse system and was only suitable for annual cropping.

As part of the Farm Water Program, Andrew laser graded the area into 16 larger bays, reducing the time, labour and volume of water for each irrigation.

A four megalitre drainage reuse system was constructed, incorporating part of a rationalised Goulburn-Murray Water spur channel, servicing the project area and eight hectares previously laser graded. A 15 megalitre groundwater storage dam was also installed as a back-up in dry times.

The improvement in slope and drainage made the site suitable for lucerne that Andrew's milking herd can graze over summer.

The new layout also provides flexibility in sourcing water: from the Goulburn-Murray Water channel, a shallow groundwater pump and the newly installed reuse system.

Farm channels supplying the new bays take increased flow rates from the multiple sources, and large bay outlets allow large flow rates onto each bay.

"The overall time taken to irrigate this piece of land has been reduced dramatically and I am confident that the water savings are being achieved," Andrew said.

The project was undertaken while the adjacent Goulburn-Murray Water channel was remodelled and rock armoured, improving the result for both Andrew and Goulburn-Murray Water.

The project is expected to generate 72.7 megalitres of water savings, which are to be split evenly between Andrew for his own use and the Commonwealth Environment Water Holder for improving environmental flows in stressed rivers and waterways.

The Australian Government's On-Farm Irrigation Efficiency Program invested \$21.1 million and the Victorian Government's Northern Victoria Irrigation Renewal Project invested \$16.4 million in the Farm Water Program during 2010-11, with 18 gigalitres of water savings generated.



Channel constructed to deliver water from reuse system.

Planning and responding (including research and development)

Compiled by Katie Warner and Rod McLennan

Annual performance, long-term strategy implementation progress and Catchment condition change

Decision focus ⁱ	Examples of evidence used to inform decisions	1990 ⁱⁱ	Certainty of rating	2011	Certainty of rating	Trend
2010-11 performance	Corporate Plan KPIs related to planning and responding (see page 52) Strategies and plans developed, implemented, revised or updated	n.a.		On target	High	n.a.
Long-term strategy implementation progress	Strategies and plans developed, implemented, revised or updated	n.a.		On target	Medium	↓ ⁱⁱⁱ
Catchment condition ^{iv}	Anecdotal ^v Systems in place related to planning and responding	Poor	Medium	Satisfactory	Medium	↑

i See Appendix 1 for notes on the analytical framework (page 82), including an explanation of the decision focus and ratings.

ii Ratings for 1990 have been determined using our understanding in 2011 of what the situation was like in 1990.

iii Assumed to parallel the government funding trend.

iv The reference point is taken to be the time just prior to European settlement, when the Catchment is considered to have been in excellent condition.

v Examples of anecdotal evidence include feedback from external experts, selection of Catchment for piloting approaches to emerging issues, adoption by other natural resource management regions of approaches developed within Catchment, inclusion of Catchment people in State, National and International knowledge forums.

Background

The first comprehensive integrated natural resource management strategies in Australia were developed by the Goulburn Broken community in 1990: the Shepparton Irrigation Region Land and Water Salinity Management Plan and the Goulburn Broken Dryland Salinity Management Plan.

Several pioneering approaches to strategy and planning in emerging fields followed, including water quality and native vegetation management. Strategic design and decision-making processes are continually adapted as new concepts and knowledge emerge.

Regional Catchment Strategy

The Goulburn Broken Regional Catchment Strategy was first developed in 1997 as a requirement of the *Catchment and Land Protection Act 1994*. It provides a high level and integrated strategic direction for natural resource management in the region. A new Regional Catchment Strategy will be developed in 2011-12. The effect of the deferral in reviewing the 2003 Regional Catchment Strategy is minimised by having sub-strategies updated on a regular basis so that the foundations of natural resource management in the Goulburn Broken Catchment remain current.

The Shepparton Irrigation Region Catchment Implementation Strategy and the Dryland Landscape Strategy inform the current Regional Catchment Strategy (see diagram on the next page). Both strategies integrate information from sub-strategies to articulate visions for the Shepparton Irrigation Region and Dryland landscapes. The Goulburn Broken Catchment has a strong suite of theme or issue-based sub-strategies. These are reviewed and updated continually and inform annual investment planning.

Government investment

- included as part of investment in 'Governance' (page 39).

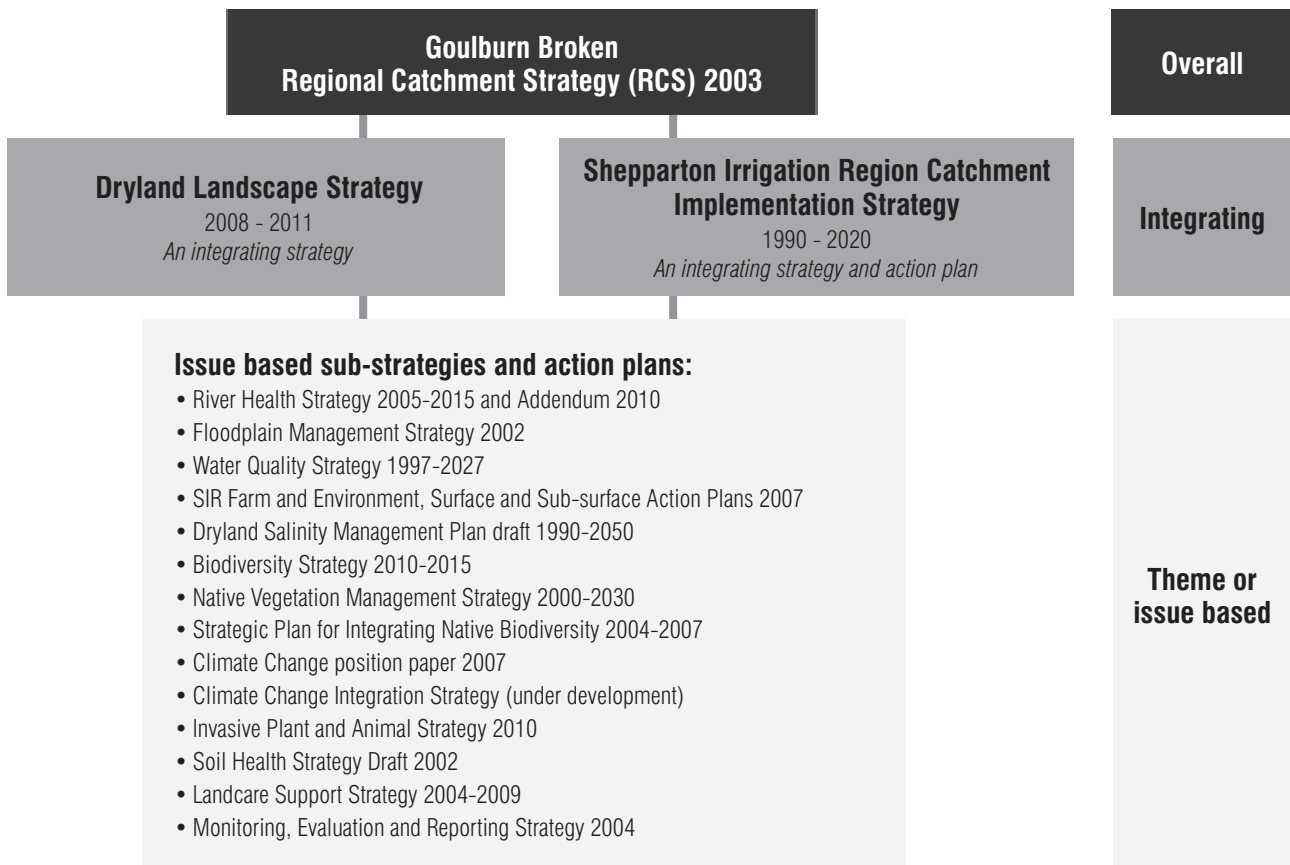
Major strategic references

- Goulburn Broken Regional Catchment Strategy 2003 (update of 1997 Strategy, due to be updated again in 2012)
- Goulburn Broken Regional Catchment Strategy 1997-2003 Process review 2004
- Goulburn Broken Corporate Plan 2010-11 to 2014-15
- Goulburn Broken Monitoring, Evaluation and Reporting Strategy 2004
- Climate Change Position Paper 2007 -2010
- IT Strategic Plan 2009-11
- Goulburn Broken Communication and Marketing Strategy 2010-11

Corporate Plan

The Corporate Plan is prepared annually in accordance with sections 19C and 19D of the *Catchment and Land Protection Act 1994*. It includes annual details on investment and expected achievements within programs. The Corporate Plan follows the high level directions set in the Regional Catchment Strategy and also satisfies new and emerging requirements from the regional community and government funders.

Regional Catchment Strategy and sub-strategies structure



Climate Change

Projections for future climate scenarios in the Goulburn Broken Catchment (2030) indicate there will be more hot days, reduced and erratic rainfall, less snow and frosts, more frequent extreme events like bushfires and storms, and extinctions. This will likely have a significant impact on the Catchment's natural, rural and urban environments. Natural ecosystems (terrestrial, freshwater and marine) are considered to be most vulnerable to the effects of climate change.

The Goulburn Broken CMA statement on Climate Change is:

"In dealing with climate change and the likely impacts, the Goulburn Broken CMA will focus on adaptation strategies to increase catchment resilience; greenhouse gas sequestration activity (e.g. carbon brokering) will be engaged for the purpose of assisting adaptation responses; and mitigation initiatives led by local government will be actively supported."

The Goulburn Broken CMA is taking proactive steps to implement the Goulburn Broken CMA Climate Change Statement via strategic directions outlined in the Goulburn Broken CMA's Climate Change Position Paper 2007-2010 and the development of the Goulburn Broken CMA Climate Change Integration Strategy.

Research and development (and evaluation)

Research and development activities are highlighted within each investment area section of this Annual Report. A knowledge inventory listing State, National or International projects that the Goulburn Broken CMA is involved with is available at www.gbcma.vic.gov.au.

The Goulburn Broken region follows a systematic process of reviewing and updating plans and strategies as set out in the 2004 Monitoring, Evaluation and Reporting Strategy. Progress is monitored regularly and sometimes strategies or plans are updated earlier than scheduled, or new strategies are developed, in response to emerging issues or critical drivers.

Integrated catchment management involves decisions based on information from different backgrounds and disciplines. The Goulburn Broken CMA's efforts to standardise outputs since 2002-03 (see page 82) and to summarise progress via long-term scorecards since 2005-06 (see page 16) are important in developing a uniform language and framework, enabling comparisons over time, and helping the Goulburn Broken CMA, the community, agencies and government investors to understand the benefits and tradeoffs of decisions. The framework provides a stable and ongoing approach, while government funding frameworks and language change frequently.

The linking and aggregating of site specific actions (or outputs) to long-term outcomes via the McLennan-O'Kane equation, $\text{Outputs} \times \text{Assumptions} = \text{Outcomes}$, has further fostered common understanding between disciplines and identified priority knowledge gaps. This has helped drive many regional and national research and development projects over the last several years.

The research and development strategy for groundwater and salinity management progressed by SIRIC over the last two decades is in part implemented through a close relationship with DPI's Research and Practice Change groups and G-MW's research and development group. This strategy is pivotal to evaluating and seeking new knowledge for implementing the Shepparton Irrigation Region Catchment Implementation Strategy.

Investment patterns and maturity of approachesⁱ

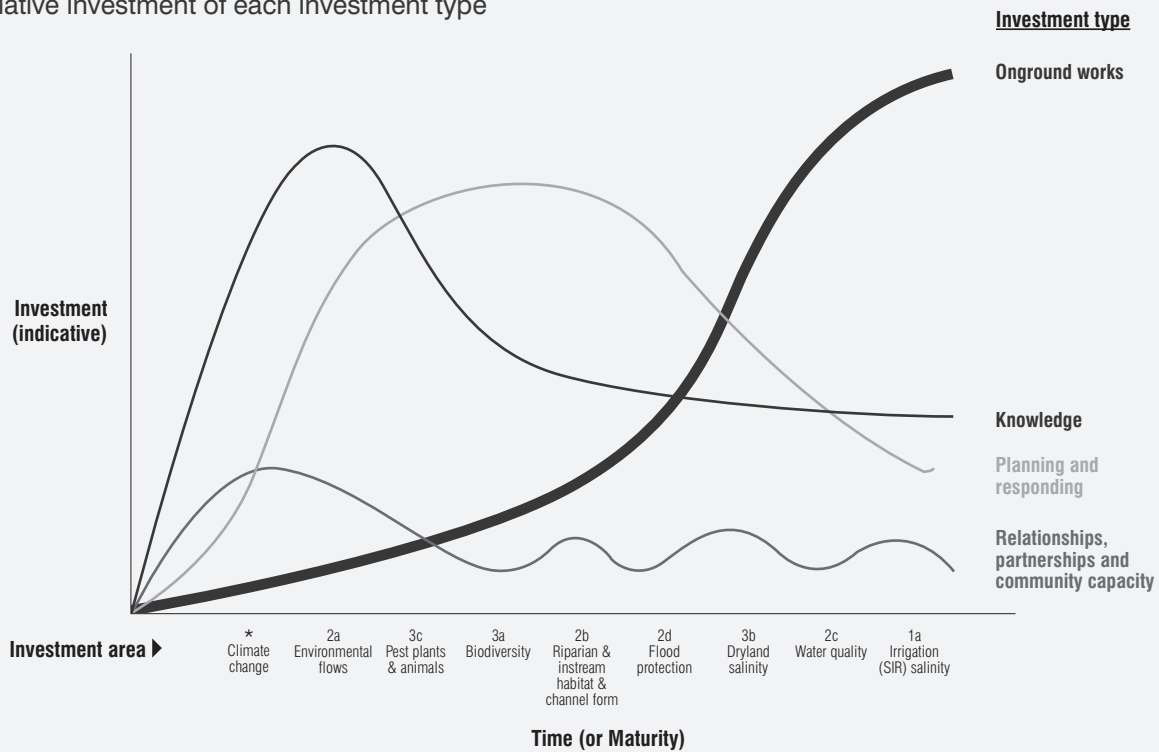
The stylised investment patterns shown in this graph show we are at different stages of maturity of implementing approaches in our eight environmental investment areas.

For example, investment in irrigation salinity began much earlier than investment in biodiversity, which in turn is more mature than investment in environmental flows and water supply.

The time scale is different for each investment area. Investment in dryland salinity is not likely to follow an exponential uptake because information has emerged that requires us to revisit our plans.

Government investment often dictates the levels of investment in each investment type (onground works; knowledge; planning and responding; and relationships, partnerships and community capacity) although the Goulburn Broken CMA attempts to ensure the balance of investment between the different types is appropriate for the issue.

Relative investment of each investment type



* Goulburn Broken's response to climate change is integrated within each investment area; it is not a separate investment area. It is useful to show its relative immaturity on this graph.

i Adapted from the Goulburn Broken CMA's From the fringe to mainstream - A strategic plan for integrating native biodiversity 2004-07

2010-11 performance

Planning and responding highlights are reported in individual investment area sections. The following highlights some of the progress against high level integrating documents that form the basis of the Goulburn Broken CMA's planning and response.

Plan or strategy	Progress	Further details
Corporate plan	Corporate Plan key performance indicators were satisfied appropriately.	Key performance indicator progress report page 52
Regional Catchment Strategy (updated 2003)	Most actions progressed subject to funding availability. A new Regional Catchment Strategy will be developed during 2011-12.	Achievements report (completed 2009) available upon request
Dryland Landscape Strategy	Finalised 2008 and implementation is underway.	See Broken Goulburn Implementation Committee report page 21
Shepparton Irrigation Region Catchment Implementation Strategy (updated 2007)	30 year salinity actions on track (farm works ahead, public infrastructure behind giving overall on-target rating). Under review in 2010-11 in the context of declining funding, Northern Victoria Irrigation Renewal Project and an increasingly variable climate. Constantly adapting in response to new information and political climate.	Page 84 www.gbcma.vic.gov.au
Climate Change Position Paper 2007-2010	Goulburn Broken CMA: <ul style="list-style-type: none"> - started developing the Goulburn Broken CMA Climate Change Integration Strategy - reviewed the Climate Change Position Paper 2007-2010 - is an active member of the Goulburn Broken Greenhouse Alliance - is influencing climate change policies such as the Carbon Farming Initiative and local government environment strategies - partnered local government in attracting funds to undertake climate change and biodiversity resilience community education - contributing to climate change research through Monash University and CSIRO - became a member of a National carbon working group. Evidence for integrating climate change needs is also listed within investment area reports.	Various investment area reports within this Annual Report.
Goulburn Broken CMA Monitoring, Evaluation and Reporting Strategy 2004	Actions 90 per cent completed. Will be reviewed as the next Regional Catchment Strategy is developed (during 2011-12).	See 'Knowledge inventory' at www.gbcma.vic.gov.au .
IT Strategy 2008-11	An external review of Goulburn Broken CMA's information and communication technology services resulted in relatively high ratings in much of the planning, sourcing, build and support activity and groups; minor gaps in IT policy are being addressed and existing procedures are being documented to aid future reviews and succession planning.	
Biodiversity Strategy for the Goulburn Broken Catchment 2010-2015	Strategy released in July 2010; implementation progressing subject to funding.	See investment area 3 – Biodiversity page 103
River Health Strategy Addendum 2010	Addendum developed.	See investment area 2 – River health page 89
Goulburn Broken Invasive Plants and Animal Strategy	Strategy endorsed by DPI in October 2010. This strategy sets the direction and guides government investment for pest management in the Goulburn Broken Catchment. Similar strategies are being developed across the State.	www.gbcma.vic.gov.au and page 113
Communication and Marketing Strategy 2010-11	Finalised April 2010. Internal strategy to guide internal and external communication and marketing activities.	Page 19

Long-term strategy implementation progress

Refer to 'Background' and 'Regional Catchment Strategy' on page 26.

Catchment condition

For over two decades, comprehensive strategies have been developed and implemented for many issues including integrated catchment management, water quality, biodiversity, floodplain protection and river health, and evaluation and improvement have been critical parts of the planning cycle since 1990.

The formal and informal systems (including for governance, collaborations and communities, and human resources) that have been developed over two decades position the Catchment to respond rapidly to new issues such as drought and the 2009 Black Saturday bushfires.

There is wide anecdotal recognition of the regional community as a world leader in natural resource management: the Goulburn Broken CMA is widely regarded as a responsive, leading and action focused natural resource manager.

The Regional Catchment Strategy is overdue for updating, although timelines are beyond the control of the Goulburn Broken CMA as guidelines are set by the Victorian Catchment Management Council. The update was due in 2008 and will now occur during 2011-12. The impact of this is being minimised by having sub-strategies updated whenever they fall due so that the foundations of natural resource management in the Goulburn Broken remain current.

What's next?

See also planning and responding sections in other investment areas.

Development of the next Goulburn Broken Regional Catchment Strategy, will be significant, reflecting:

- the new Victorian Government's policy directions, including its responses to its Inquiry into Flood Mitigation Infrastructure in Victoria and the 2009 Victorian Bushfires Royal Commission
- prevailing climatic conditions
- other issues identified in sub-strategy reviews
- emerging resilience thinking; with support of internationally renowned academics (Goulburn Broken CMA is at the forefront of regional organisation thinking on resilience and is seeking answers to questions such as: where and when must we accept change and what is near a tipping point?).

Rehabilitating priority waterways following the flood events of 2010-11 is a high priority. This includes documenting and understanding how past investment affected the extent and severity of flood damage. The Goulburn Broken CMA was allocated \$50,000 in 2011 for flood recovery by the Australian Government and \$1.66 million by the Victorian Government for works.

The Goulburn Broken CMA will increase triple bottom line outcomes by accelerating the rollout of the Farm Water Program, maximising water and productivity gains through connections to a modernised irrigation system.

The Goulburn Broken CMA will develop and implement a Climate Change Integration Strategy and will be proactive in influencing climate change policy at all levels of government. The Strategy will guide climate change adaptation for Goulburn Broken assets through existing programs by ensuring it is considered in planning, implementation, evaluation and reporting. The Strategy will also guide how climate change is considered in the next Regional Catchment Strategy.

Following significant rainfall in 2010 and 2011, protecting the productive irrigated landscapes from the return of high watertables and therefore salinity will be a significant focus in 2011-12. This will include (but is not limited to) seeking increased funding for proven activities.

Business management will be improved by developing efficiency and effectiveness measures across all Goulburn Broken CMA investment areas.

The Goulburn Broken CMA will continue to capture opportunities for providing input into development of Murray-Darling Basin Authority's Basin Plan.

Flood knowledge for both statutory and emergency management purposes will be improved through opportunities under the Natural Disaster Resilience Grants Scheme. Ways of strengthening the Goulburn Broken CMA's influence and statutory function with respect to land use planning across all programs will be investigated to reduce adverse impacts of future planning decisions on the Catchment.

There will be a focus on improving river ecology through environmental flows and complementary works through the River and Wetland Health implementation project. Local impacts of environmental flows will be assessed.

Environmental footprint

Compiled by Annie Squires

Annual performance, long-term strategy implementation progress and Catchment condition change

Decision focus ⁱ	Examples of evidence used to inform decisions	1990 ⁱⁱ	Certainty of rating	2011	Certainty of rating	Trend
2010-11 performance	Outputs (against targets set as a result of funds received)	n.a.		On target	High	n.a.
Long-term strategy implementation progress	Outputs (scheduled to be progressed between 2007 and 2011)	n.a.		On target	High	● ⁱⁱⁱ
Organisational condition ^{iv}	Energy consumption Paper consumption Management systems	Very poor	Very low	Poor	Low	↑

i See Appendix 1 for notes on the analytical framework (page 82), including an explanation of the decision focus and ratings.

ii The reference point is taken to be the time just prior to European settlement, when the Catchment is considered to have been in excellent condition.

iii Assumed to parallel government funding trend.

iv Ratings for 1990 have been determined using our understanding in 2011 of what the situation was like in 1990. Ratings are about the condition of the natural resource management organisations (with respect to environmental footprint) rather than the condition of the Catchment.

Background

The Goulburn Broken CMA formalised its approach to minimising the environmental footprint of its business activities in 2007-08 through the Reducing our Footprint project supported by the Victorian Government ResourceSmart program.

With support from management and staff, the Goulburn Broken CMA has continued to promote awareness and environmentally responsible and sustainable practices.

All environmental initiatives and activities of the Goulburn Broken CMA are guided by the Goulburn Broken CMA Organisational Footprint Policy and the Reducing Our Footprint Action Plan, which were both revised in 2011, and the Victorian Government's Financial Reporting Directions (FRD) 24C.

2010-11 performance

The Reducing our Footprint program continued to be a voluntary program supported by management and staff. The Goulburn Broken CMA acknowledges the importance of protecting environmental values and setting an example for the community and other organisations. An Environmental Sustainability Manager, appointed in December 2010, is implementing a more systematic approach to measuring environmental performance.

The Environmental Management Policy and Reducing Our Footprint Action Plan were revised during 2011 and supporting procedures are being developed to further minimise the Goulburn Broken CMA's environmental footprint for a range of business activities. The organisation's Environmental Footprint will also form part of the Goulburn Broken CMA's Climate Change Integration Strategy, which is being prepared.

See also comments in the table above.

Government investment, \$000

2008-09	2009-10	2010-11	2011-12 ⁱ	Trend
15	6	18	25	●

i Forecast is based on funding advice at August 2011.

Major strategic references

- Goulburn Broken CMA Organisational Environmental Footprint Policy 2011
- Goulburn Broken CMA Reducing our Footprint Action Plan 2011 (Draft)
- Energy Audits of Goulburn Broken CMA 2008
- ResourceSmart
- Financial Report Direction (FRD) 24C

Strategy implementation progress

All achievements from initiatives implemented in 2008 and 2009 were maintained, reflecting the commitment of staff and management.

Major actions from the Reducing Our Footprint Action Plan 2007-2010 were completed. Some actions were deferred due to lack of resources and have been incorporated into the updated Reducing Our Footprint Action Plan 2011.

Initiatives arising from the Reducing Our Footprint Action Plan 2007-2010 resulted in improvements in energy use, recycling rates, waste generation and fuel usage.

Organisational condition

Although we began collecting and improving data on our office-based environmental impacts in 2006-07, this is the first year of reporting against FRD24C, enabling us to formalise benchmarks and better understand progress, including comparisons with other organisations.

The following table highlights significant improvements in energy use, waste management and transport.

Office-based environmental impacts reportingⁱ

Category	2006-07	2010-11	2010-11 actions and comments
Greenhouse gas emissions by category (t CO₂-e)			
Associated with:			
energy use	179	173	
vehicle fleet	363	406	
air travel	not avail.	33	
waste to landfill	8.68	6.51	
Offsets purchased	-	-	
Energy use			
Total (MJ)	532,548	513,290	Total energy use for Shepparton and Yea office was slightly lower than in 2006-07, even though there was a significant increase in staff numbers.
Green Power	0%	0%	
Per FTE (MJ/FTE)	14,688	11,773	
Per unit of building space (MJ/m ²)	272	262	
Waste management			
Total units of waste by destination (kg/year)			Separate composting, recycling and landfill bins were continued in staff kitchens. IT department continued responsible recycling of IT equipment and toner cartridges.
Council landfill	8,680	6,510	
Comingled recycling	4,530	6,470	
Compost	-	260	
Printer/copier toner	131	76	
Units of waste per FTE by destination (kg/FTE/year)			
Council landfill	239.40	149.31	
Comingled recycling	124.94	148.39	
Compost	-	5.96	
Printer/copier toner	3.60	1.75	
Recycling rate (% of total waste)	35%	51%	
Paper use			
Total copy paper (reams)	514	631	Paper use per staff member in 2010-11 was about the same as it was in 2006-07.
Copy paper per FTE (reams/FTE)	14.2	14.5	
Recycled content in copy paper purchased (%)			
0-50% recycled content	not avail.	16%	
50-75% recycled content	not avail.	82%	
75-100% recycled content	not avail.	2%	
Water consumptionⁱⁱ			
Total (metered; kilolitres)	not avail.	57	Water consumption data is only available for Yea office. Shepparton office is co-tenanted so separate water metering is not available.
Total per FTE (metered; kilolitres/FTE)	not avail.	7.45	
Total per unit of office area (metered; kilolitres/m ²)	not avail.	0.23	
Transportⁱⁱⁱ			
Total energy consumption by vehicles (MJ)	5,142	4,967	Includes all fleet vehicles or disposed, pool vehicles and vehicles used for labour hire staff. Almost 90% of Goulburn Broken CMA's vehicles are 4 cylinders with the remaining 6 cylinder vehicles using Liquefied Petroleum Gas (LPG). All non-LPG passenger vehicles (non 4x4) have carbon dioxide emission ratings of less than 220 grams per kilometre. The emission rating of operational (4x4) vehicles continues to fall with a maximum carbon dioxide emission rating of 240 grams per kilometre.
Total vehicle travel associated with entity operations (km)	not avail.	1,831,018	
Total distance travelled by air (km)	not avail.	90,766	
Procurement			
Suppliers and contractors environmental practices.			Sustainable purchasing procedures are being developed.

i Categories are from FRD 24C. Data includes Shepparton and Yea offices. Units: MJ – megajoule; m – metre; km – kilometre; kg – kilogram; t CO₂-e – tonnes carbon dioxide equivalent; FTE – full time equivalent (staff).

ii Water consumption data only available for Yea office.

iii Details of vehicle fleet are available at www.gbcma.vic.gov.au.

What's next?

The Goulburn Broken CMA will further reduce its environmental footprint by developing and implementing procedures for purchasing, energy use, waste management, water use, vehicle fleet and travel, and paper use. Opportunities in field operations will be investigated.

Human resources

(including occupational health and safety)

Compiled by Kate Pendergast, Richard Warburton and Rod McLennan

Annual performance, long-term strategy implementation progress and Catchment condition change

Decision focus ⁱ	Examples of evidence used to inform decisions	1990 ⁱⁱⁱ	Certainty of rating	2011	Certainty of rating	Trend
2010-11 performance	Outputs (against targets set as a result of funds received)	n.a.		On target	High	n.a.
Long-term strategy implementation progress	Outputs	n.a.		On target	Medium	● ^{iv}
Catchment condition ⁱⁱ	Workforce data Management systems	Satisfactory	Medium	Good	Medium	↑

i See Appendix 1 for notes on the analytical framework (page 82), including an explanation of the decision focus and ratings.

ii The reference point is taken to be the time just prior to European settlement, when the Catchment is considered to have been in excellent condition.

iii Ratings for 1990 have been determined using our understanding in 2010 of what the situation was like in 1990.

iv Assumed to parallel government funding trend.

Background

The Goulburn Broken CMA aims to create a sustainable, diverse, highly skilled, progressive and professional staff body.

The Goulburn Broken CMA fosters a staff culture of self management, flexibility, initiative and leadership by:

- supporting development of workplace skills through short courses, conference attendance and accredited training
- providing training and pathways for those who aspire to lead, have potential to grow and the judgement to succeed in senior roles
- tailoring diverse experiences for staff development
- encouraging peer support
- offering workplace arrangements that meet the needs of a broad staff demographic.

The size of the Goulburn Broken CMA fosters professional and supportive relationships between managers and staff. This enhances one-on-one staff coaching, mentoring, cross-disciplinary experiences and knowledge and career development.

The Goulburn Broken CMA is large enough to have a dedicated human resource function that provides support, advice and guidance to managers and staff, and is small enough for such services to be readily accessed and tailored with an intimate understanding of individual needs.

A healthy and safe organisation

The Goulburn Broken CMA emphasises occupational health and safety across all aspects of the workplace. Comprehensive policies and procedures were reviewed and refined during 2010-11 to reflect best practice and changes to workplace consultation requirements as part of the *Occupational Health and Safety Act 2004*.

The Goulburn Broken CMA requires all staff to participate in occupational health and safety management and operations.

Government investment, \$000ⁱ

2008-09	2009-10	2010-11	2011-12 ⁱⁱ	Trend
4,346	4,402	6,436	6,153	●

i Excludes Board and support committees. These are costs rather than investment. Costs are embedded within other investment areas.

ii Forecast based on estimated increases of 4 per cent cost and 5 per cent staff numbers on 2010-11 figures.

Major strategic references

- Goulburn Broken Corporate Plan 2010-11 to 2014-15
- *Public Administration Act 2004* (employment and conduct principles)
- Public Sector Industrial Relations Policy Manual 2010
- Goulburn Broken CMA Human Resources Policies and Procedures
- *Occupational Health and Safety Act 2004*
- The State of the Public Sector in Victoria 2008-09
- People Matters 2010
- *Equal Opportunity Act 1995*

2010-11 performance

The focus for human resource management at the start of 2010-11 was on preparing for amalgamation of North East, North Central and Goulburn Broken CMAs. While the amalgamation did not eventuate because of a change in Government and policy, cross-CMA working parties identified several collaboration opportunities for training and development, human resource management policies and procedures development, and information system development.

Recruiting highlights

Several key staff members were recruited, including a Floodplain and River Health Projects Coordinator, a Land and Biodiversity Unit Manager, an Information Communications and Technology Manager, and additional technical and delivery staff to support the Farm Water Program.

Structure review

The Dryland and Biodiversity Programs were combined to form the Land and Biodiversity Unit and the Farm Water Program was integrated into a new Sustainable Irrigation Program (previously the Shepparton Irrigation Region Program) as part of a structural review, aiming to better align staff with delivery of State Government policy and to improve linkages between programs.

Leave management

The Goulburn Broken CMA has existed since 1997 and the workforce is maturing, with 48 per cent of employees having more than five years of service and 28 per cent entitled to long service leave, based on service with Goulburn Broken CMA or prior recognised organisations.

Leave reduction plans and a cap on accrued annual leave were introduced to meet Work Life Balance, Health and Wellbeing and financial liability objectives: a cap of 30 days from 30 June 2011 will reduce to 20 days from 30 June 2012, and as at 30 June 2011, 15 per cent of employees required leave reduction plans. The Goulburn Broken CMA has subscribed to the Victorian Government No Leave, No Life initiative.

Strategy review

The Human Resources Strategy review has started and will be completed in 2011-12, aligning to principles of the Natural Resource Management Business Excellence model. The Strategy aims for a flexible and capable workforce and staff who are engaged in meaningful and valued work.

Employee value proposition

The Employee Value Proposition is being reviewed as part of the website review, looking at how the Goulburn Broken CMA brand should be portrayed and communicated when recruiting. The website is the primary source of information about employment.

Annual workshop

The theme for the annual staff workshop in November was community engagement. Staff highlighted lessons, successes and pitfalls of community engagement strategies within current projects. Day two included a tour of Barmah, a wetlands presentation and a special morning tea with Indigenous Youth Journey participants, a project funded by the Goulburn Broken CMA.

Personal development, training and contributions

CEO, Chris Norman, and Acting Biodiversity Strategy Manager, Vanessa Keogh, attended a Resilience Conference in the USA. Chris also attended the NRM CEO'S Conference in Perth.

IT Manager, Annie Squires, completed Certificate IV Training and Assessment to help her make the transition to a part time role of supporting training coordination and delivery, and Bianca Gantcheff, Business Support Trainee, completed Certificate III in Business Administration.

The Goulburn Broken CMA provided work experience for two Year 10 students during the year and for one university student during the September floods.

Workplace health

Following on from the Workplace Health and Wellbeing focus in 2010, the Goulburn Broken CMA reviewed its Workcover insurance, resulting in a transfer to CGU Insurers.

Occupational health and safety (OH&S)

Policies and procedures associated with OH&S practices were reviewed by PKF Chartered Accountants and Business Advisers, including benchmarking against best practices AS/NZS 4801. Four recommendations, three of low importance and one of medium importance, were addressed and included in the OH&S Procedures, following consultation with staff via the OH&S Committee.

An annual review of the OH&S Policy Statement was endorsed by the Board and an annual review of Goulburn Broken CMA OH&S Procedures, which is underway, will be completed by November 2011.

The OH&S Committee and the OH&S Manager developed a process for reporting quarterly on Health and Safety Key Performance Measures to the Audit Compliance Remuneration Committee.

A centralised database was set up to record signed site safety plans of all worksites, including works activities and risk measurement safety control mechanisms.

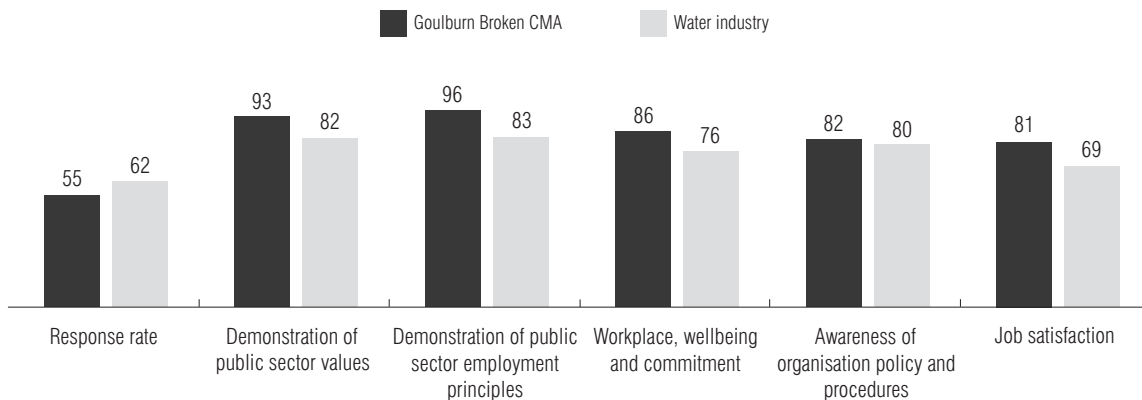
System improvements

Human resources data and status reports were prepared (as part of due diligence leading into the proposed CMA amalgamations) and management of payroll data was updated and improved, with long service leave entitlements to be managed electronically within the Meridien payroll system.

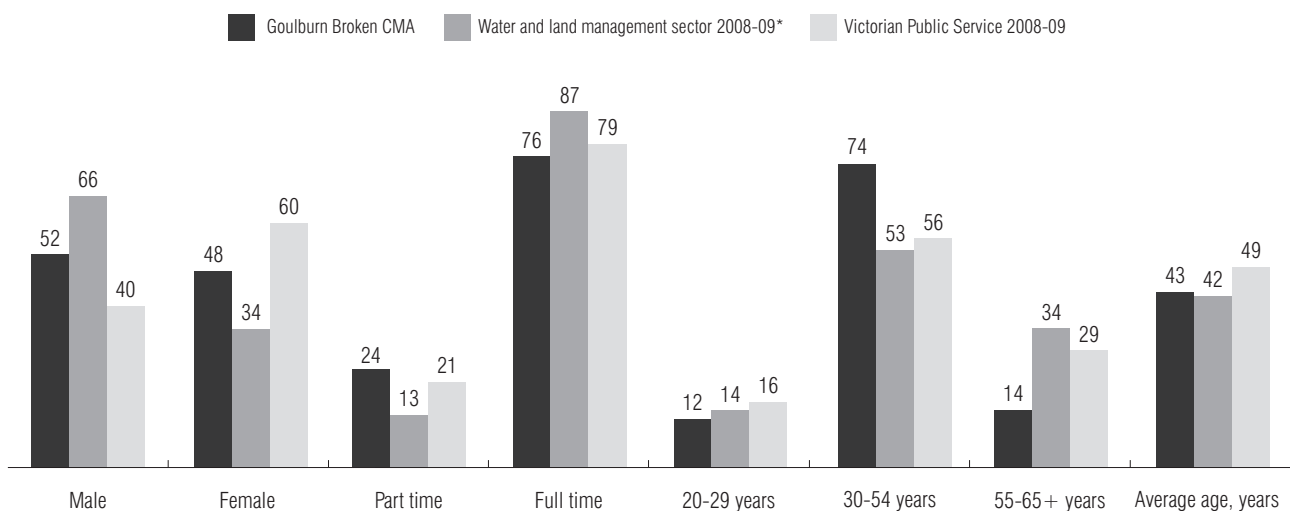
Occupational health and safety statistics summary

	2009-10	2010-11
Total incidents, no.	9	11
Days lost	1	1
Hazards reported, no.	2	2
Lost time injury frequency rate	15	11.8
Occupational health and safety committee meetings (excluding tool box meetings), no.	5	6

People matter (staff) survey benchmarked results (2010), %



Goulburn Broken CMA people profile 2010-11, %



* Water and Land Management sector includes 38 organisations including Alpine Boards, CMAs and Water Authorities.

General workforce statistics

	Goulburn Broken CMA						Water and land management sector 2008-09 ⁱ	Victorian public service 2008-09	Comments
	2008-09		2009-10		2010-11				
	no.	%	no.	%	no.	%			
Gender and employment typeⁱⁱ									
Male	28	51	28	50	33	52	66	40	
Female	27	49	28	50	31	48	34	60	
Part time	12	22	14	25	15	24	13	21	
Full time	43	78	42	75	49	76	87	79	
Part time male	1	2	1	2	2	3	5	10	Goulburn Broken CMA continues to offer flexible work practices and has maintained the proportion of part time positions.
Part time female	11	20	13	23	13	21	29	28	
Full time male	27	49	28	50	31	48	95	90	
Full time female	16	29	14	25	18	28	71	72	
<i>Total employees</i>	55	100	56	100	64	100	100	100	
Total full time equivalentsⁱ	50.4		49.7		58.7				Grew by 18%.
Employment statusⁱⁱ									
Fixed term	20	36	20	36	30	47	13	16	Higher proportion of fixed term contracts implemented to minimise staffing liability in preparation for amalgamation.
Ongoing	35	64	36	64	34	53	87	84	
Employment category									
Executive Officers	2		2	0	2	3	-	-	
Senior Managers	7		7	9	8	12	-	-	
Admin Officers	31		33	46	49	72	-	-	
Field staff	15		14	32	9	13	-	-	
Age profile (years, by tally)ⁱⁱ									
20-24	0	10	0		0	0	14	16	With 46% of the workforce aged 30-34, the Goulburn Broken CMA is well positioned. We increased our workforce in the 20-29 age grouping by 3%.
25-29	6		5	9	8	12			
30-44	26	74	26	46	31	46	53	56	
45-54	17		18	32	19	28			
55-59	2	16	4	7	7	10	34	29	
60-64	3		2	4	2	3			
65+	1		1	2	1	1			
Average age, years	43		43		43		42	49	
Years of serviceⁱⁱⁱ									
12 months or less	7	12	4	7	11	17	-	-	61% of Goulburn Broken CMA staff have served for longer than the Australian industry average of 3.4 years.
1-3 years	14	24	10	18	14	22			
3-5 years	9	15	15	27	8	13			
5+ years	29	49	27	48	31	48			
Average length of service, years	5.82		7.2		6.5		6		
Salary distribution									
<\$40,000	9	16	9	16	5	8	6	12	Salaries are fiscally responsible, being competitive with others in the water sector.
\$40,000 – 59,999	23	42	19	34	20	31	44	35	
\$60,000-79,999	12	22	15	25	23	36	29	38	
\$80,000+	11	20	13	23	16	25	21	15	
Average Salary	\$67,608	-	\$68,729		\$68,266		-	-	
Qualifications^{iv}									
Year 12 or less	-	-	13	22	12	19	30	16	
Certificate	-	-	5	8	5	8	-	12	
Advanced Diploma/Diploma	-	-	5	8	6	9	-	11	
Degree	-	-	28	47	32	50	-	30	
Postgraduate Degree/Graduate Diploma	-	-	9	15	9	14	-	31	
Turnover (total)	5	9	4	7	4	6	-	-	Turnover is approximately two thirds of the rate for all industries and current staffing growth brings in new skills and ideas. Turnover was not linked to an age range or length of service.
Turnover (ongoing staff only)	-	-	1	-	2	3	8	9	
Exit interviews completed	4	80	1	25	2	50	-	-	Exit interviews reinforced staff satisfaction with both work and employment conditions.
Absenteeism	-	1.9		1.7	-	1.9	-	-	Flexible work practices aid unplanned absenteeism.
Training expenditure (% of salary budget)	\$115,000	2.4	\$103,000	2.3	\$124,911	2.3	-	-	

i Water and Land Management sector includes 38 organisations including Alpine Boards CMAs and Water Authorities.

ii Active employees: any Goulburn Broken CMA employee included in payroll system whose status is not terminated.

iii All employees including terminations (excludes Board and committee members).

iv Includes all employees for 2010-11.

Long-term strategies implementation progress

Maintaining a stable and productive workplace continues to be our focus. All indicators (2010 People Matter Survey) point to this being achieved.

Recommendations to be completed from the Review of Occupational Health and Safety Practices (March 2011).

Recommendations completed from the Occupational Health and Safety Review (April 2009) include establishment of an occupational health and safety risk register, implementation of a consistent risk assessment methodology, and an increased frequency of workplace inspections. Key performance indicators around these improvements have also been developed and will be included in future reporting.

Goulburn Broken CMA staff continue to be extremely aware of, and satisfied with, occupational health and safety management, policies and procedures, with 100 per cent recorded for the four workplace health and safety elements of the 2010 people matter survey.

Catchment condition

Goulburn Broken CMA continued its excellent record in occupational health and safety, with the first report of a lost-time injury resulting in a full recovery and return to work. (Reporting of lost-time injuries started in 2008.)

After many years of stability, staff turnover remained low at 6 per cent in 2010-11. The lower turnover percentage can be attributed to the 18 per cent growth in staff numbers.

Staff satisfaction is among the best in the Victorian public sector and water sector (see People Matter survey results graph on page 35). Staff satisfaction improved further in the 2010 results.

The increase to 50 per cent of employees holding a degree level qualification reflects the expertise and technical knowledge of our staff working in the broad range of natural resource management roles within our organisation and the recruitment of appropriately qualified staff during 2010-11.

Industrial issues did not escalate and were resolved to the satisfaction of staff and management.

What's next?

There will be a focus on the new nationalised *Safe Work Australia Act* that will come into force on 1 January 2012. The Authority is preparing a review of its OH&S documentation and contract management to ensure it will meet its OH&S obligations under the new legislations and Regulations framework.

There will be a focus on the completion and implementation of the revised Human Resources Strategy and the negotiation of a new Enterprise Agreement. The current Agreement expires 30 June 2012.

Workplace health initiatives will continue to be promoted as part of the commitment to health and well being.

Training frameworks and management will be a key focus for improvement.

Our staff

A list of all staff employed by the Goulburn Broken CMA for all or part of 2010-11 is on the inside of the back cover.

Management Team and Unit Manager profiles are listed on page 38.

Goulburn Broken CMA Management Team and Unit Managers

Corporate

Amanda McClaren, BAppSc (Photography) (Hons) – Communications and Marketing Manager

Coordinates and delivers the Communications and Marketing function including events management, publications, media and community engagement strategy.

Annie Squires – Information Technology (IT) Manager
Oversees information and communication technology services.

Chris Norman, BAppSc, Grad Dip (Rural Resource Management), Dip (Frontline Management), GAICD – Chief Executive Officer
Provides advice on strategic direction, policy and implementation at the direction of the Board. Responsible for overall programs, funding arrangements and day-to-day operations. Accountable Officer under the *Financial Management Act* and directly responsible to the Board for day to day operations.

Kate Pendergast, BBus (Marketing), Cert IV Assessment and Workplace Training – Strategic Human Resource Manager
Coordinates and delivers the Human Resource function, providing support and advice to all levels of management and staff on human resource issues.

Richard Warburton – Occupational Health and Safety Manager
In addition to his waterways role, Richard develops and maintains statutory obligations for compliance and maintenance of safety management system activities including policies, procedures and manuals.

Cindy Doherty, BA (Hum) – Executive Assistant
Provides administrative support to the CEO and the Board and its sub-committees, including significant liaison with senior managers and members of the Board.

Stan Gibney, BA, FCA (Ireland), CA, CIA, MIA – Business Manager and Freedom of Information Officer
Ensures efficient administration of the Authority and the provision of prompt and timely financial advice to the CEO and Board.

Jason Head, BAcc Assistant Business Manager
Provides support to the the Business Manager in the administration and reporting of all finance and accounting operations including payroll.

Business development

Katie Warner, BAg (Hons), MPPM, DipBus (Frontline Management) – Business Development Manager
Responsible for funding and investment processes and provides strategic advice to the CEO on monitoring, evaluation and reporting and managing the update of the Regional Catchment Strategy.

Land and biodiversity

Steve Wilson, BAppSc (Parks, Recreation and Heritage) Land and Biodiversity Manager
Manages and coordinates biodiversity program, including investment and strategic planning, monitoring and reporting and integration of climate change responses.

Mark Cotter, BAgSc (Hons), Dip Proj Man't, GradCertAppSc (Maths) – Dryland Strategy Manager
Supports Dryland Manager with policy advice and technical support and implements strategic projects in the Dryland

Tony Kubeil, BSc – Manager Landcare and Communities
Provides support to Landcare groups in the region and coordinates a number of projects including the development and implementation of the Regional Landcare Strategy.

Vanessa Keogh, Bsc (Hons) – Acting Biodiversity Strategy Manager
Manages the development, integration and supports the implementation of the strategic planning and investment planning within the Land and Biodiversity Unit.

River health and flood protection

Geoff Earl, BE (Civil) – Environmental Water Flow Coordinator
Works closely with environmental water resources officers in North East, Goulburn Broken and North Central Catchment Management Authority regions and provides strategic advice on managing stream flow to meet regional ecological and environmental flow targets.

Guy Tierney, BE (Civil) – Floodplain Manager
Manages the floodplain program and statutory planning activities across the Goulburn, Broken and part of the River Murray basins.

Mark Turner, BAppSc (Natural Resource Management) & Graduate Certificate in River Health – River Health Implementation Manager
Oversees the river health implementation programs, leading a team of field staff.

Neville Atkinson – Indigenous Natural Resource Management Facilitator
Coordinates cultural heritage matters related to natural resource management across the Goulburn Broken Catchment, providing strategic direction and advice to the Goulburn Broken CMA and its partners including local government, the community and Traditional Owners.

Wayne Tennant, Cert of Technology (Civil Engineering), GradDipEM, GAICD – Strategic River Health Manager
Provides senior professional advice and guidance to the CEO and Board on policies, programs, implementation strategies, research activities, monitoring, and related projects on river health.

Sustainable irrigation

Carl Walters, Assoc Dip (Civil), MIEAust – Sustainable Irrigation Unit Manager
Provides executive liaison with the Shepparton Irrigation Region Implementation Committee to ensure works program targets are met in line with the Corporate Plan. Provides input to statewide Salt Disposal and Sustainable Irrigation Program working groups and water related issues.

Megan McFarlane, BAgSc (Hons), MNatRes, GAICD – Farm Water Program Manager
Responsible for leading the development, investment and planning processes and associated delivery of the Farm Water Program. Provides high level advice and guidance to the Chief Executive Officer, Farm Water Program Working Group and Program Advisory Committee, Business Manager and senior program managers on all aspects of the Farm Water Program.

Governance

Compiled by Stan Gibney and Jason Head

Annual performance, long-term strategy implementation progress and Catchment condition change

Decision focus ⁱ	Examples of evidence used to inform decisions	1990 ⁱⁱ	Certainty of rating	2011	Certainty of rating	Trend
2010-11 performance	Corporate Plan key performance indicators ⁱⁱⁱ Compliance ^{iv}	n.a.		On target	High	n.a.
Long-term strategy implementation progress	Corporate Plan key performance indicators ^v Compliance ^{iv}	n.a.		On target	Medium	● ^{vi}
Catchment condition	Efficiency ratios Management systems: - legislative and funding backing - policies and procedures - communities' capacity ^{vii}	Poor	Medium	Satisfactory	Medium	↑

i See Appendix 1 for notes on the analytical framework (page 82), including an explanation of the decision focus and ratings.

ii Ratings for 1990 have been determined using our understanding in 2011 of the situation in 1990.

iii See Corporate Plan performance areas, indicators, targets and progress table page 52.

iv See performance of statutory responsibilities as a Victorian State Authority and Employer page 44.

v Aggregated performance over the years Goulburn Broken CMA has been in existence (since 1997).

vi Assumed to parallel government funding trend.

vii Evidence listed in 'Collaborations and communities' section page 17.

Background

This section includes:

- a description of 'governance'
- the legislative and funding context of the Goulburn Broken CMA to establish its corporate governance practices
- a scorecard (above) as a summary of annual and long-term performance (including compliance) and the capacity of the Catchment's people to undertake sound and ethical natural resource management
- an overview of the Goulburn Broken CMA's governance practices
- a risk management attestation
- Goulburn Broken CMA's performance of statutory responsibilities as an employer and a Victorian State Authority
- performance against key performance indicators listed in the Goulburn Broken CMA's Corporate Plan
- What's next? (strategic priorities over the next 12 months).

Description of governance investment area

This 'enabling' program exists to ensure that Goulburn Broken CMA continues to fulfil its statutory and corporate functions in an optimum cost environment and maintain a high level of governance, transparency and accountability in delivering program commitments agreed with investors and ensuring that:

- areas of finance and reporting, business development, communications and marketing, human resources and IT requirements are clearly aligned with our business objectives
- a safe workplace is provided for all employees, contractors and visitors
- an effective risk management framework is in place which forms an integral part of the strategic planning processes, where risks are identified, assessed and monitored under risk treatment plans to mitigate the risk to an agreed level

Government and other investment, \$000

2008-09	2009-10	2010-11	2011-12 ⁱ	Trend
1,519	2,025	1,918	1,651	● ⁱ

i 50% of 2011-12 funding (\$520) paid in June 2011. Anticipate early payment for 2012-13. Other income includes interest and sundry funds such as long service leave contributions less reallocations. Interest receivable projections for 2011-12 are less than what was received in 2010-11, however underlying government investment is maintained in real terms.

Major references

- Goulburn Broken Catchment Management Authority Corporate Plan 2010-11 and 2011-12.
- DSE Assessment of Corporate and Statutory Costs 2005.
- Governance Guidelines for DSE Portfolio Statutory Authority Board.

- comprehensive monitoring and evaluation process in place, including project reporting on expenditure and outputs is of a high level and in line with requirements of the Board and investors
- an optimum information management system is in place to allow Goulburn Broken CMA to undertake, record, communicate and report on its business activities undertaken throughout the catchment
- it leads the process in Goulburn Broken CMA minimising its environmental footprint
- works in partnership, and openly shares knowledge and information, with a range of agencies and other Victorian CMAs to improve the delivery of integrated natural resource management
- it has an optimum corporate structure commensurate to its program funding acceptable to all stakeholders and the community at large
- those members of the community who need to be engaged support (or accept) and provide the Goulburn Broken CMA with a licence to operate.

What's next (strategic priorities over the next 12 months)?

The Goulburn Broken CMA is a mature organisation with an optimum corporate structure managing a revenue base of \$47 million in 2010-11. The key challenge in the short term continues to be maintaining an optimum structure given the variability of funding levels and differing requirements of investors for reports and information as well as the ever increasing challenge to minimise the cost of corporate administration to deliver more dollars for on-ground works.

Other general priorities include:

- identifying new, and maintaining existing, funding streams to enable investments to be made within the Catchment aligned to what is required to meet our obligations under the *Water Act* and *CaLP Act*. This needs to be undertaken in an environment where there are competing demands on State and Federal budgets in areas such as health and emergency response
- having the ability to demonstrate to government and the Catchment community the return on taxpayers' investment in natural resource management in a timeframe and language that fits within the political reality
- the ability to recruit and retain people with specialist skill sets required to support our Statutory Obligations, such as in the area of floodplain management
- balancing the need to actively support partnerships in service delivery while promoting the Goulburn Broken CMA brand for local and political recognition.

Specific priorities to be addressed include:

Finance and reporting

- continued enhancement of a suite of financial performance and assurance reports to enable monitoring and informed decision making by relevant users
- maintenance of a comprehensive risk management framework covering all areas of Goulburn Broken CMA's operations.

Business development

- seek new investors principally from the Corporate Sector willing to make major investments in natural resource management
- develop a suite of efficiency and effectiveness measures which underpins the Goulburn Broken CMA's investment in programs which can be incorporated into the monitoring and evaluation process
- oversee implementation of organisational Business Improvement Plan (arising from transition process and continuation of Goulburn Broken CMA).

Human resources

- finalise a human resources strategy to identify personalised skills and organisational needs of the Goulburn Broken CMA
- identify specific training needs of all employees to develop their potential which aligns to and maximises the contribution to Goulburn Broken CMA's agreed business goals for 2011-12.

Information and communication technology

- develop an Information and Communication Technology strategy to deliver agreed initiatives from 2011 to 2014 with particular emphasis on 2011-12.

Marketing and communications

- implementation of approved Communications & Marketing Strategy
- enhance the branding and marketing of Goulburn Broken CMA to clearly distinguish it from Goulburn-Murray Water and Goulburn Valley Water
- complete the upgrade of the Goulburn Broken CMA website both in design and security of hosting.

Occupational health and safety (OH&S)

- monitor compliance activities against agreed OH&S KPIs
- ensure that Goulburn Broken CMA meets its obligations under the new Safe Work Australia Act.

Goulburn Broken CMA's legislative and funding context

Refer to 'Power and duties' on page 2 for the legislative context.

The Victorian Government funds the Goulburn Broken CMA to fulfil its duties as detailed in the Statement of Obligations.

Costs that enable the Goulburn Broken CMA to fulfil its core corporate and statutory obligations are funded from a direct corporate allocation and interest earned. Other corporate costs are charged to projects up to a Board-approved percentage. Corporate costs are not charged on project funding to community groups or other partners.

Goulburn Broken CMA's funding of \$47 million was sourced from regional, State and Commonwealth Government sources in 2010-11. It is estimated that the regional community contributes (in-kind and via products and services) about the same that governments contribute. An increasing amount of government funding received is from initiative funding sources. Benefit cost analysis is undertaken on parts of the business where it is possible, such as major infrastructure work.

All works undertaken comply with State, Murray-Darling Basin and National strategies.

Objectives, functions, powers and duties of the Goulburn Broken CMA

Under section 12 of the CaLP Act:

- 1 The Authority has the following functions in respect of the region for which it has been appointed:
 - a To prepare a Regional Catchment Strategy for the region and to coordinate and monitor its implementation
 - b To prepare special area plans for areas in the region and to coordinate and monitor its implementation
 - c To promote the cooperation of persons and bodies involved in the management of land and water resources in the region in preparing and implementing the Strategy and special area plans
 - d To advise the Minister, and, if requested by any other Minister, that other Minister
 - i on regional priorities for activities by land resource allocations to bodies involved in the management of land and water resources in the region
 - ii on guidelines for integrated management of land and water resources in the region
 - iii on matters relating to catchment management and land protection
 - iv on the condition of land and water resources in the region.
 - e To promote community awareness and understanding of the importance of land and water resources, their sustainable use, conservation and rehabilitation
 - f To make recommendations to the Minister about the funding of the implementation of the Regional Catchment Strategy and any special area plan
 - g To make recommendations to the Minister and the Secretary about actions to be taken on Crown land managed by the Secretary to prevent land degradation
 - h To advise the Minister and provide information to the Minister on any matter referred to it by the Minister
 - i To carry out any other functions conferred on the Authority by or under this Act or any other Act.
- 2 Each Authority has power to do all things that are necessary or convenient to be done for or in connection with, or as incidental to, the performance of its functions, including any function delegated to it.
- 3 Subsection (2) is not to be taken to be limited by any other provision of this Act that confers a power on the Authority.
- 4 Each Authority has the duties conferred on it by or under this or any other Act.

Goulburn Broken CMA Board

Members of the Goulburn Broken CMA Board of Directors are drawn from within the region and together have extensive experience and knowledge of primary industry, land protection, water resource management, waterway and floodplain management, environmental conservation, local government, business and financial management.

Under the direction of the Board, the Goulburn Broken CMA develops detailed environmental management strategies under the umbrella of the over-arching Regional Catchment Strategy.

Goulburn Broken CMA's corporate governance practices

Sound and ethical corporate governance practices underpin Goulburn Broken CMA's overall performance including compliance with what is required and expected of it.

The Goulburn Broken CMA aims to fulfil its corporate and statutory operations efficiently and effectively.

Benchmarking

Costs and achievements are benchmarked regularly against those of peer organisations and similar industries and the ratio of tasks performed by employees in-house to those outsourced is also closely monitored.

Board committees

The Goulburn Broken CMA has established an Audit Risk and Compliance Committee and a Remuneration Committee. Both committees operate under the terms of their respective charter.

Audit, Risk and Compliance Committee

(Directors Curtis, Chapman and Court meet the criteria of 'independent' member)

- Eileen Curtis (Chair)
- Murray Chapman
- Peter Ryan
- Terry Court
- John Pettigrew

Remuneration Committee

- Frank Whitford (Chair)
- Peter Ryan
- Lyn Gunter
- Russell Pell

Implementation Committees

The Shepparton Irrigation Region Implementation Committee and the Broken Goulburn Implementation Committee oversee implementation of projects including onground works to ensure the activities of the Goulburn Broken CMA reflect the views of local communities. (See 'Collaborations and communities' section for lists of committee members.) The Goulburn Broken CMA and partner agencies offer an array of incentives to landholders wishing to undertake environmental works.

Priority integrated environmental works are achieved by combining the best available science with practical challenges such as running a productive farm or maintaining a waterway for environmental and tourism benefits.

Planning framework

The Goulburn Broken CMA's planning framework is described within the 'Planning and responding' section from page 26.

Risk management

The Goulburn Broken CMA reviewed its risk profile during the year and it was considered by the Audit, Risk and Compliance Committee.

Risk management attestation

I, Peter F Ryan, certify that the Goulburn Broken CMA has risk management processes in place consistent with the Australian/New Zealand Risk Management Standard AS/NZS ISO 31000-2009 and an internal control system is in place that enables the executive to understand, manage and satisfactorily control risk exposures. The Audit, Risk and Compliance Committee verifies this assurance and that the risk profile of the Goulburn Broken CMA has been critically reviewed within the last 12 months.



Peter F Ryan
Chair

Board directors and officers

for the financial year ended 30 June 2011



Board directors are (L-R): Lyn Gunter, Stan Gibney (Business Manager), Eileen Curtis, Terry Court, Chris Norman (Chief Executive Officer), Murray Chapman, Russell Pell, Peter Ryan (Chair), John Pettigrew and Frank Whitford.

Peter Ryan – Chair (Cosgrove South)

Peter is a full-time primary producer of prime lambs, crops and hay. Peter has had a long and distinguished career in agriculture, education and business. Peter's past positions include: CEO of Goulburn Ovens Institute of TAFE, Principal of Dookie College, Principal of the Gilbert Chandler College of Dairy Technology and a Senior Rural Education Officer with the Victorian Department of Agriculture. Peter's previous board positions include the Australian Rural Leadership Foundation, Goulburn Valley Health, International Training Australia Pty Ltd, Goulburn Ovens Institute of TAFE and a number of rural and regional development organisations.

John Pettigrew – Deputy Chair (Bunbartha)

John is a member of the Goulburn Valley Environment Group, the Environmental Farmers Network and a member of Landcare. John was previously a director of Goulburn-Murray Water, SPC Limited and the Goulburn Broken Catchment and Land Protection Board and also previously a member of Victorian Farmers Federation. John has a background in horticulture and farming and his other interests include water resource management, protection and enhancement of the natural environment, governance and climate change.

Russell Pell (Wyuna)

Russell is a member of the Murray-Darling Basin Authority's Basin Community Committee. He also chairs the Modernisation Group for Central Goulburn for the Northern Victorian Irrigation Renewal Project (NVIRP). Russell's previous positions include eight years as a member of the Shepparton Irrigation Region Implementation Committee (including four years as Chair), membership of the Australian Landcare Council, and he was an Associate Director of Tatura Milk Industries. He has worked with Dairy Australia on a number of projects over recent years. Russell has built up a large dairy enterprise at Wyuna which he now manages with his son. His interests lie in finding a balance between managing the environment and sustaining good agricultural industries.

Lyn Gunter (Flowerdale)

Lyn has been a five-time Mayor of the Shire of Murrindindi and her involvement in local government spans 16 years. She has been a member of the North East Victoria Area Consultative Committee and a board member of Murrindindi Construction. Lyn has been a State Emergency Services controller for ten years and is a member of various community bodies, including the Mitchell and Murrindindi Floodplain Mapping Study, the Yea Floodplain Management Study, the Goulburn Drought Recovery Committee, the State Rural Zones Review Committee and the Goulburn-Murray Water Quality Reference Committee. Lyn has an interest in holistic approaches to land use planning, which includes water-use, climate, soil and rainfall and the integration and implications of ground and surface water within the Catchment.

Frank Whitford (Northwood)

Frank has a strong background in business and financial management. Frank is Managing Director of Furniture and Bedding Concepts. He was also Managing Director of Fletcher Jones, Mitre 10 Australia and the Sportsgirl/Sportscraft Group. He has extensive senior management experience in Australia and internationally. Frank has held a number of Board positions and is currently a Board member of PrimeSafe Victoria. Frank farms Wagyu Cattle in Seymour and Numurkah and is committed to sustainable farming, with a strong desire to improve Landcare and waterways.

Murray Chapman (Goomalibee)

Murray is a Director of RuralPlan Pty Ltd, which provides natural resource management advisory services as well as land and water project management throughout Australia. Murray specialises in providing technical support and facilitation services on water and onfarm efficiency. He has many years' experience in assisting governments and industry to achieve change-based programs. Murray has served on the board of the Benalla and District Memorial Hospital. He is a partner in a family farm at Goomalibee and a member of local community organisations.

Terry Court (Tatura)

Terry is a civil engineer with over 38 years experience in the rural water industry. He possesses a wealth of professional experience and extensive community involvement in natural resource management, irrigation, drainage, water catchment, river management, industrial relations, human resources, asset management and contract administration. Terry is a committee member of the Winton Wetlands Committee of Management and was a member of the Lower Goulburn Waterway Management Authority and Goulburn Broken CMA's Waterways Working Group. Terry is Deputy President of the Goulburn Valley Environment Group and is heavily involved with local community organisations, including hospital and retirement village committees.

Eileen Curtis (Murchison)

Eileen is a Certified Practising Accountant with over 15 years experience in senior finance executive roles within the manufacturing, fruit processing and wine industries. She brings to the board experience in strategic planning, business review, audit, capital budgeting, corporate governance, financial management and reporting. Eileen has been actively involved over the years in various local community service clubs and sporting organisations and is on the Board of the Rushworth Community Bank. Her interests lie in managing natural resources through climate change to protect the long-term economic and environmental sustainability of the Goulburn Broken Catchment region.

Board members attendance record at meetings

Board member	Board meetings (11 held)	Audit, Risk and Compliance Committee (7 held)	Remuneration Committee (4 held)
Murray Chapman	10	6	n/a
Terry Court	11	7	n/a
Eileen Curtis	10	7	n/a
Lyn Gunter	10	n/a	3
Russell Pell	11	n/a	4
John Pettigrew	11	7	n/a
Peter Ryan	10	6	4
Frank Whitford	10	n/a	4

Compliance

The following table includes several summaries of Goulburn Broken CMA's compliance that are discussed in more detail elsewhere in this Annual Report.

Goulburn Broken CMA's performance of statutory responsibilities as a Victorian State Authority and Employer

Act or policy	Board's major tasks	2010-11 issues and status
Statutory Authority		
<i>Catchment and Land Protection Act 1994</i>	Prepare, coordinate, monitor and review of Regional Catchment Strategy.	Preparation for review of Regional Catchment Strategy currently underway.
	Submit to Minister and Council by the prescribed date: "A report on the condition and management of land and water resources in the region and carrying out of its functions."	2009-10 Annual Report submitted on time and 2010-11 on schedule.
	Corporate Plan to be submitted to Minister under the <i>CALP Act</i> by 30 April.	Submitted to Minister by 30 April 2011. Approved under Section 19C (3) of the <i>CALP Act</i> .
	Members declare new interests at each (monthly) Board meeting and document it in Pecuniary Interests Register. Members must submit a primary return and an annual return.	Declarations of Pecuniary Interests have been duly completed by all relevant directors and officers of the Goulburn Broken CMA and are available for inspection.
<i>Water Act 1989</i>	Corporate Plan available for inspection.	Copy is available for inspection during business hours and can be accessed by visiting www.gbcbma.vic.gov.au .
	Review funds at each (monthly) Board meeting. Policy for investment as per the <i>Trustee Act 1958</i> .	During the year, Goulburn Broken CMA continued to invest funds with TCV at call and on term deposits at competitive rates in line with DTF's policy on Centralisation of Borrowing and Investment Activities.
	Submit statement of borrowings. Review borrowings at each (monthly) Board meeting.	Included as part of Corporate Plan. Finance Leases are classified as borrowings due to their accounting treatment.
	Meeting Procedures of Authorities.	Minutes are available through application under Freedom of Information. Goulburn Broken CMA has adopted Governance Guidelines for Statutory Authority Board Members, DSE 2005 and Code of Conduct for Public Sector Employees adopted.
	Waterway management responsibilities.	Goulburn Broken CMA was established as a body corporate under the <i>Catchment and Land Protection Act</i> and then established as an Authority under the <i>Water Act</i> and delegated waterway management, floodplain management and drainage functions under Part 10 of the <i>Water Act</i> .
<i>Public Administration Act 2004</i>	Ensure operations of Board comply with Part 5.	The State Services Authority has developed a range of guidelines to be adopted by public sector organisations. Guidelines cover employment principles, ethics, merit and equity. The Goulburn Broken CMA has reviewed processes to ensure compliance. A recruitment kit has been developed and reviews undertaken of equal opportunity, harassment and bullying policies.
<i>Environmental Protection and Biodiversity Conservation Act 1999</i>	Provide for the protection of the environment and promote ecologically sustainable development through the conservation and ecologically sustainable use of natural resources and promote the conservation of biodiversity.	All works have a process which assesses the works against this Act. The Goulburn Broken CMA and its partners have complied with all requirements.
<i>Freedom of Information Act 1982</i>	Report requests for access to documents in Annual Report. Report requests at each (monthly) Board meeting. The Act gives persons the right to request certain types of information (which are not exempt documents) held by the Authority. The Authority's Freedom of Information Officer is authorised to make decisions about access to documents under the Freedom of Information Act. The officer has 45 days from the date of receiving a valid request to accede to or reject the applicant's request. There are two costs associated with making a Freedom of Information request, the application fee of \$24.40 which is non-refundable and an access cost which covers the cost to Authority for providing the information.	The <i>Freedom of Information Act 1982</i> allows members of the public a right of access to documents held by the Goulburn Broken CMA. Freedom of Information requests are made in writing describing the documents requested and including payment of the \$24.40 application fee. Further charges may be payable. Freedom of Information fees and charges are not subject to GST. Requests to the Goulburn Broken CMA should be sent to Freedom of Information Officer, PO Box 1752, Shepparton, Vic 3632. The telephone contact number is (03) 5820 1100; enquiries can be emailed to reception@gbcbma.vic.gov.au . No valid applications were received during the year.
<i>Whistleblowers Protection Act 2001</i>	Report actions in Annual Report. Report actions at each Board meeting.	No issues reported. Disclosures of improper conduct by the Goulburn Broken CMA or its employees may be made to Vicki Mackenzie (Protected Disclosure Coordinator) or alternatively to the Ombudsman. (See Appendix 7 for policy, page 121.)

Act or policy	Board's major tasks	2010-11 issues and status
Statutory Authority		
	Goulburn Broken CMA is the Floodplain Management Authority under Part 10 of the <i>Water Act</i> and is a Section 55 Referral Authority under the Planning and Environment Act.	The Goulburn Broken CMA continues to receive more referrals than any other CMA in the State (790 in 2010-11).
<i>Planning and Environment Act 1987</i>	As per the Act and Victorian Planning Provision Practice Notes. Board is advised of application refusals at each (monthly) meeting.	Decisions are made in accordance with the Victoria Flood Strategy, the Goulburn Broken Regional Floodplain Management Strategy, the Victorian Planning Provisions Practice Notes and Authority Policy, all of which have largely been incorporated into respective municipal planning schemes as performance based criteria.
	Local government can request advice but are not required to implement it.	Advice has been provided where appropriate.
<i>Privacy Act 2000</i>	Ensure details of individuals are protected.	Goulburn Broken CMA has an endorsed Privacy Policy in accordance with the Act on how personal information is stored and under what circumstances it can be accessed or released to third parties.
<i>Flora and Fauna Guarantee Act 1988</i>	Conserve the Catchment's communities of flora and fauna and manage potentially threatening processes and educate the community in the conservation of flora and fauna.	The Goulburn Broken CMA continues to support the implementation of action statements and recovery plans for threatened flora and fauna by the Department of Sustainability and Environment.
<i>Environmental Protection Act 1970</i>	Protection agencies need to report in their annual reporting processes, actions taken to implement the Policy (as per their responsibilities in State Environment Protection Policy (Waters of Victoria) and Schedules), so that Environment Protection Authority can then report to the community.	A process was initiated in 2009-10 to conduct priority ecological risk assessment, using Guidelines for Environmental Management Risk-based Assessment of Ecosystem Protection to determine further work required. Participated in the development of the Regional Goulburn Broken Waterway Incident Agreement. Staff attended training with respect to emergency and incident response. (Australian inter-service incident management system.)
	Outlines CMA's roles with respect to set goals, priorities and targets.	
	Refers to water allocations and environmental flows.	
	Relates to responsibilities of various agencies for ensuring sustainable agricultural activities with the catchment.	
	Relates to the management of irrigation channels and drains.	
	Refers to vegetation protection and rehabilitation.	
<i>Forest Act 1958</i>	Liaise with DSE as required.	For waterways in areas managed by DSE under the Act, the Goulburn Broken CMA complied with elements of the code which deal with access to waterways and crossings.
<i>Financial Management Act 1994</i>	Undertake review of its annual operations and advise Minister regarding compliance with Financial Compliance Management Framework.	Information listed under FRD 22b is available on request under the <i>Freedom of Information Act 1982</i> .
<i>Cultural Heritage Act 1986</i>	Ensure the use of cultural heritage management plans for certain development plans or activities and interact with registered Aboriginal parties to evaluate management plans, advise on permit applications and enter into cultural heritage agreements.	Goulburn Broken CMA complied with requirements, being committed to policies, programs and strategies aimed at delivering culturally appropriate services to all Victorians. Current practices of inclusive and thorough public consultation ensure that all persons who have an interest in investigations are kept informed and have the opportunity to have input into Goulburn Broken CMA deliberations.
<i>Building Act 1993</i>	Comply with standards for the construction and maintenance of buildings.	Goulburn Broken CMA complied with building and maintenance provisions of this Act.
National Competition Policy	Ensure fair competition.	Competitive neutrality seeks to enable fair competition between government and private sector businesses. Any advantages or disadvantages that government businesses may experience as a result of government ownership should be neutralised. The Goulburn Broken CMA continues to apply this principle in its business undertakings.
<i>Marine Act 1988</i>	The Goulburn Broken CMA was the Boating Authority for the Goulburn River downstream from the Eildon Weir pondage and upstream of Hughes Creek.	Goulburn Broken CMA reviews boating speed limits and audits signage and access in its area of responsibility. The Goulburn Broken CMA has relinquished this role with effect from July 2011.
<i>Country Fire Authority Act 1958</i>	Work with other related organisations to assist in the control, prevention and suppression of fires within the Catchment.	Goulburn Broken CMA has policies relating to waterway operations that comply with the Act and reduce fire risk. Fire suppression equipment has been purchased.
Victorian Industry Participation Policy	The Victorian Industry Participation Policy is a Victorian Government initiative designed to promote greater access for small to medium enterprises to work with major projects.	The \$16 million allocation by NVIRP to the Farm Water Program has been recognised under this Policy.

Act or policy	Board's major tasks	2010-11 issues and status
Employer		
<i>Workplace Relations Act 1996</i>	Comply with the Award system which provides a minimum set of terms and conditions for employment of Goulburn Broken CMA employees.	Goulburn Broken CMA's policies have been evaluated for alignment against the Act and are available to staff on its portal (intranet). The process for the renewal of the current agreement - Professional, Administrative and Technical Staff Enterprise Agreement 2009-2012 is underway.
<i>Equal Opportunity Act 1995</i>	Annual data return reporting gender, diversity and complaints lodged and investigated.	The Goulburn Broken CMA is an equal opportunity employer. Kate Pendergast is the sexual harassment contact officer. No complaints were received in the reporting period. Of the Goulburn Broken CMA staff, 48 per cent are female and 52 per cent male (see page 36).
<i>Long Service Leave Act 1992</i> Victorian Long Service Leave Regulations 2005 Water Long Service Leave Regulations 2001	Long service leave liability is updated monthly to the Board.	Policies comply with Act. Liability is reflected in financial provisions and calculation explained in the notes to the financial statements.
<i>Occupational Health and Safety Act 2004, amended 2005</i>	Report occupational health and safety issues at each (monthly) Board meeting and in Annual Report.	Goulburn Broken CMA continues to review and update its policies and procedures and inducted all new staff. Manuals are in place and made available to contractors. Designated work groups and health and safety representatives are part of the consultative processes reflecting updates of the Act. Policies and procedures are available to staff on the portal (intranet). OH&S Report against agreed KPIs is provided to ARCC committee quarterly.
Victorian Government Risk Management Framework	The Victorian Government Risk Management Framework provides for a minimum risk management standard across public sector entities. Attestation by accountable officer in annual report which ensures that requirement is built into corporate planning and reporting processes.	During the year, Goulburn Broken CMA undertook a review of its risk framework and consequence ratings in line with the Australian/NZ standard. The attestation that the Goulburn Broken CMA has risk management processes in place, made by the Chair of the Goulburn Broken CMA, is consistent with the Australian/New Zealand Risk Management Standard.
Gifts, benefits and hospitality policy framework	The Victorian Government introduced a Framework requiring employees to record gifts, benefits and hospitalities offered to them in their capacity with Goulburn Broken CMA.	The Goulburn Broken CMA has a comprehensive policy in relation to this issue and staff are required to comply and record any benefits on the Register.

Details of compliance with Whistleblowers Protection Act 2001

Refer to Appendix 7, page 121, for policy.

Available information

- declarations of pecuniary interests have been duly completed by all relevant officers of the Goulburn Broken CMA
- details of publications produced by the Goulburn Broken CMA about the activities of the Authority and where they can be obtained
- details of changes in prices, fees, charges, rates and levies charged by the Goulburn Broken CMA for its services, including services that are administered
- details of any major external reviews carried out in respect of the operation of the Goulburn Broken CMA
- details of any other research and development activities undertaken by the Goulburn Broken CMA that are not otherwise covered either in the report of operations or in a document which contains the financial report and report of operations
- details of overseas visits undertaken including a summary of the objectives and outcomes of each visit
- details of major promotional, public relations and marketing activities undertaken by the Goulburn Broken CMA to develop community awareness of the services provided by the Authority
- details of assessments and measures undertaken to improve the occupational health and safety of employees, not otherwise detailed in the report of operations
- a general statement on industrial relations within the Goulburn Broken CMA and details of time lost through industrial accidents and disputes, which is not otherwise detailed in the report of operations
- a list of major committees sponsored by the Goulburn Broken CMA, the purpose of each committee and the extent to which the purposes have been achieved
- information relevant to the headings listed in Financial Reporting Direction 22B of the *Financial Management Act 1994* is held at the Authority's office and is available on request subject to the *Freedom of Information Act 1982*.

Other information

Other information such as publications, major external reviews, overseas travel or promotional and public relations activities are available on request, subject to the *Freedom of Information Act 1982*.

Headline theme reports

This section includes data prescribed in the 'DSE guide to annual reporting – CMAs and VCMC (2010 to 2011 financial year)', which refers to the template to be followed in this Annual Report to fulfil statutory requirements of section 19B of the *Catchment and Land Protection Act 1994*.

Information in this Annual Report has generally been compiled in a structure that directly relates to the Goulburn Broken CMA's corporate plan to promote clear accountability, while the prescribed requirements focus on 'headline themes'. It is expected that corporate plan reporting requirements and headline theme reporting requirements will merge over the next few years. The following table shows how these two requirements relate now.

Translation of DSE's headline themes to Goulburn Broken CMA's investment areas

DSE headline theme	Goulburn Broken CMA investment area	Details page
Biodiversity	Biodiversity	103
Marine biodiversity	Not applicable	
Inland aquatic ecosystems	River and wetland health	89
Land health	Salinity Invasive plants and animals	84,110 113
Environmental stewardship	River and wetland health Biodiversity	89 103
Community capacity	Collaborations and communities Planning and responding	17 26
None applicable	Human resources	33
None applicable	Environmental footprint	31
None applicable	Floodplain management	99

Management summary

Biodiversity

Implementation of the Goulburn Broken CMA's Biodiversity Strategy 2010-2015, which was launched by Kate Auty (Commissioner for Environmental Sustainability) in July 2010, has begun and progress under the Strategy's five strategic directions has been documented.

The Land and Biodiversity Unit received \$1.732 million from the Victorian Government through the Victorian Investment Framework (via the Natural Resources Investment Program) and \$3.01 million through the Australian Government's Caring for Our Country.

Partnerships continue to be robust, with targets and timelines for all projects met and approximately 70 per cent of funds delivered to partner organisations for:

- onground works (DPI)
- permanent protection of high values sites (Trust for Nature)
- management and protection of threatened woodlands (North East CMA, DPI)
- threatened species protection (DSE)
- priority projects (community groups through an expression of interest process).

Significant levels of onground works were achieved, including fencing of 1,543 hectares of remnant vegetation and planting of 1,383 hectares of indigenous vegetation. The Threatened Grassy Woodlands project, environmental grants and the Strathbogie Ranges Wetland Tender (which improved 77 hectares of habitat via stewardship agreements) made major contributions.

An emphasis on biodiversity management in the upper Catchment continued, addressing the impacts of the 2009 Black Saturday bushfires, which burnt over a third of the Catchment's woody vegetation. More than 118 hectares of critical habitat were protected and weeds were controlled on 126 hectares.

The impact of the fires and our recovery efforts on biodiversity is not yet known, however several fire-recovery research projects may impart important data.

Inland aquatic ecosystems

Environmental flows

The Goulburn Broken Catchment received above average rainfall for most of 2010-11, with widespread flooding in September and December and in some rivers during January and February. The associated flows provided all environmental flow components for the Catchment's rivers, connecting the floodplains and their wetlands to the river channel for the first time in many years.

A total of 211.2 gigalitres of the Environmental Water Allocation was released over six months to manage low dissolved oxygen levels in the Broken Creek and the lower Goulburn River, to maintain minimum flows in the lower Goulburn River, and to ensure success of waterbird breeding events in the Barmah-Millewa Forest.

Riparian and instream habitat and channel form

Significant effort and resources have been invested in recovering from damage along river frontages caused by the February 2009 Black Saturday bushfires and the series of unseasonal floods across the Catchment from September 2010 to February 2011. The Goulburn Broken CMA partnered the community and government agencies in a range of natural resource and community based activities, including fencing, revegetation, pest plant and animal control, sediment control, water quality monitoring and employment.

Works to improve instream habitat were investigated and commissioned on the Goulburn River and Broken Creek.

Key monitoring projects to assess the impact of works included:

- ecological effects of the Tungamah pipeline on ephemeral systems
- the effects of the Lake Mokoan decommissioning on turbidity and fish communities in the Broken River
- the contribution of slackwater habitats to instream diversity in the Broken River
- riparian trend assessment (application of the State-wide rapid appraisal method at Large Scale River Restoration sites on the Goulburn River)

Seventy-eight hectares of wetlands and three hundred and fifty-four hectares of stream remnants were fenced.

Water quality (nutrients) in rivers and streams

In 2010-11, the focus of water quality management shifted to the impact of floods on instream water quality, a stark contrast to the preceding years of focusing on dry inflow conditions and catastrophic fire events. Research and investigations continued, including real-time monitoring and assessment of fires and floods on instream water quality.

Land health

Shepparton Irrigation Region salinity

Implementation of the Shepparton Irrigation Region Catchment Implementation Strategy (SIRCIS) continues to progress despite the region enduring widely varying climatic conditions and changing funding priorities. Reduced commodity prices and an inability to meet community demand for surface drainage and therefore salinity control have impacted on the region.

The emphasis again was to link implementation of the SIRCIS with various modernisation programs, especially the Northern Victoria Irrigation Renewal Project (NVIRP) and the Farm Water Program, to optimise opportunities presented by changes to delivery systems.

The whole farm planning program has aligned with the remodelled regional delivery system, requiring farm irrigation system upgrades so that full benefits are captured.

The Farm Water Program started to roll out in 2010-11. NVIRP approved \$16.4 million in September for 75 projects and the Australian Government approved \$21.1 million for 78 projects in November. As at 30 June 2011, 149 projects had been funded: 73 projects by NVIRP and 76 projects by the Australian Government. Funding was made available for 175 of 179 project applications (26 applications were withdrawn).

Land health including dryland salinity

Significant disruptions to normal works programs were caused by an extraordinarily wet spring and summer, a continued (but reduced) emphasis on recovery from the February 2009 Black Saturday bushfires, and delivery partners undergoing high staff turnover and loss of key staff.

The extraordinary wet conditions focused land managers on pressing problems of crop, pasture and stock management, away from lower priority natural resource management activities. The wet conditions also made it difficult to erect fences, which meant revegetation could not start.

Although the number of committed grants was down on previous years, there was a late surge in requests for grants. Our experience with the fire recovery and drought recovery programs suggests that late surges in interest are to be expected: land managers deal with more urgent issues before turning to the recovery of natural resources.

The Victorian Bushfire Recovery Program is coming to an end, prompting the setting of new standards to manage forward commitments. The Program has been highly successful in restoring and protecting assets and threatened species, through Parks Victoria and DSE regional staff. Assistance provided by the community was an example of the unparalleled commitment and potential of community-based groups to play a key role in service delivery.

The B register project is close to completing the first phase. Both the Independent Audit Group and Murray-Darling Basin Authority agreed to the project plan and DPI was commissioned to undertake the work (starting in 2009-10), with assistance from DSE and SKM (Sinclair Knight Merz).

An increased focus on soil and land health reflected a Commonwealth and State Government shift to a systems approach for catchment management and an emphasis on ecosystem services provided by soils, such as supporting biodiversity and sequestering carbon. The Goulburn Broken CMA's Soil Health Action Plan (2010) was reviewed and updated and a Land Health Forum was established to coordinate and consolidate agency activity in soil health. The Forum integrates technical thinking of soil health into existing biodiversity and salinity activities, using the asset-based approach presently being developed.

Invasive plants and animals

Despite DPI staff taking a lead role in locust and fruit fly response activities, pest management projects across the catchment achieved excellent results during 2010-11. Projects continued to achieve high levels of voluntary compliance, and where necessary, DPI staff implemented effective enforcement operations.

All known infestations of State and regionally prohibited weeds were treated and adjoining properties were surveyed to ensure that infestations had not spread.

Environmental stewardship

Many levels of management agreements and plans with different organisations and individuals were achieved, from strategic plans covering the Catchment to site-specific agreements on farms.

One of the best indicators of stewardship is the output 'binding management agreement', which the Goulburn Broken CMA defines as including licences, Section 173 (of the *Planning and Environment Act 1987*), and covenants. In 2010-11, 434 hectares, or 139 per cent, of a target of 311 hectares of binding management agreements were achieved. Trust for Nature was responsible for all 434 hectares of achievement.

Whole farm plans were completed for 331 properties (174 per cent of the target of 190).

Community capacity

Shepparton Irrigation Region (SIR)

The drought continued to impact on works programs, especially the Environmental and Surface Water, Groundwater and Salt Management programs. Heavy spring rains and frequent storms through summer compounded issues, causing significant floods.

Funding cuts limited the Groundwater and Salt and Surface Water Management Programs, while Farm Program activities increased as landholders strive to use water more efficiently (by integrating with the irrigation modernisation program) and to find water savings (via the Farm Water Program).

The Victorian and Australian Governments provided \$49 million to the Sustainable Irrigation Program through initiatives such as Healthy Waterways, Large Scale River Restoration, Linking Farms, Salinity Infrastructure, Sustainable Irrigated Agricultural Land Management Victorian Water Trust – Water Smart Farms, Caring for Our Country and Natural Resources Investment Program. Of these funds, \$37.5 million was for the Goulburn Broken CMA-led consortium's Farm Water Program, with the Australian Government providing \$21.1 million under its On-Farm Irrigation Efficiency Program and the Victorian Government \$16.4 million via the Northern Victoria Irrigation Renewal Project.

Goulburn Broken Dryland (Broken Goulburn Implementation Committee area; BGIC)

BGIC supported the delivery of a \$10.3 million program in the Dryland region, funded by the Victorian and Australian Governments through programs including Caring for Our Country, the Natural Resources Investment Program, and Second Generation Landcare. BGIC's role in delivery is to communicate with partners and promote cross-agency coordination. BGIC recognises the major efforts of DSE, DPI, Landcare and Goulburn Broken CMA operational teams (Waterways and Land and Biodiversity) in delivering onground outputs.

BGIC continued to help staff and the Goulburn Broken CMA Board connect with communities and other organisations in the upper and middle parts of the Catchment.

Catchment condition statement

Biodiversity

Against a reference point of pre-European settlement, the condition of the Catchment's biodiversity has been rated as 'poor': it has not improved since 1990. However, the reference point of 'pre-European' to measure current condition may not be useful because we do not aim to restore landscapes to pre-European condition. If we used a reference point other than pre-European, then it is likely that catchment condition could be shown to have improved beyond 'poor'.

It is important that we try to measure changes in the condition of biodiversity at the Catchment scale, despite the uncertainty and complexity of how and what to measure; (For example, we do not know how much native vegetation is being cleared, either legally or illegally.) A range of assumptions, which have varying degrees of certainty, are used to determine progress towards Catchment-scale targets. Developing targets or measuring condition at sub-Catchment scale may be more meaningful.

While acknowledging the uncertainty around some measures, we appear to be making some progress towards vegetation extent targets (see graph on page 108). However, future rises in extent need to be much greater if we are to reach the 2030 target.

Major threats to the condition of biodiversity include the long-term ramifications of past broad-scale clearing, which could include species extinction – referred to as 'the extinction debt', and the increased likelihood and frequency of fire due to climate change and large-scale and frequent fuel reduction burning.

The measures used to determine progress towards targets include:

- hectares of high-quality remnants of native vegetation protected through covenanting or purchase by Trust for Nature and the National Reserve System
- amount of natural regeneration through land-use change, such as stock removal
- hectares of revegetation and remnant protection through stewardship programs, such as Bush Returns (Goulburn Broken CMA), BushTender (DSE), Strathbogrie Ranges Wetland Tender, and the Woodlands Project.

Much of the progress in the condition of biodiversity relies on partnerships, which have strengthened via initiatives such as conservation management networks, Landcare and environmental water allocations.

The condition of aquatic (including wetland) biodiversity is described in 'Investment area 2a – Environmental flows and water supply' and 'Investment area 2b – Riparian and instream habitat and channel form'.

Inland aquatic ecosystems

Environmental flows and water supply

Following several dry years, 2010-11 produced floods and wet conditions that extended from spring to autumn, providing all environmental flow components for many of the Catchment's rivers, floodplains and wetlands. Planned environmental water releases to most wetlands were not required. It was also the first year in which significant environmental entitlements were available for use in the Goulburn system.

Catchment management systems that will result in appropriate watering of the environment have been under development for well over a decade. Environmental Water Reserve funding started in 2004 following release of the Victorian Government's white paper, Our Water Our Future, and environmental water allocations were occurring prior to this. Research and monitoring has been initiated.

The Goulburn River below Lake Eildon, the Broken River below Nillahcootie, and the Broken Creek are regulated. The remainder of streams in the Catchment are unregulated. Water is extracted from many streams for stock, domestic and urban supply. This has impacted on the natural hydrology, ecosystem functioning, and dependant flora and fauna to varying levels.

Preliminary condition assessments of Barmah Forest show an increasing trend in health of overstorey and understorey species, reversing the trend during the past five to ten years of drought conditions.

Riparian and instream habitat and channel form

The impact of 2010-11 flood events were assessed and will continue to be monitored. Sites aligned with approved funding will be rehabilitated.

Significant achievements resulted from the fire recovery initiative, including management of riparian weeds and protection of riparian lands. Increased effort is being placed on areas of Crown water frontages through State investment and support.

Community action in recent years has been complemented by government investment, resulting in improved protection of riparian land.

Water quality (nutrients) in rivers and streams

The five year rolling average phosphorus load from the Goulburn Broken Catchment is below the long term target, equating to a reduction of 80 per cent from the benchmark year of 1993-94.

Institutional arrangements to manage water quality threats continued through several regional participant forums.

Extensive works programs have improved the state of the system for terrestrial and aquatic species and have contributed to improved water quality.

Land health

Shepparton Irrigation Region salinity

Although risks of land salinisation, waterlogging and saline inflows into the River Murray in 2010-2011 have increased due to high spring and summer rainfall, these risks have generally declined since 1990 because of:

- government supported salinity management works, particularly in the early 1990s, including surface water management projects (that result in less water going through to the watertable) and groundwater pumping projects (that have the effect of lowering the watertable)
- complementary government-supported water quality and water savings works that have water-use efficiency and often, therefore, salinity benefits; for example, irrigation delivery infrastructure through the Foodbowl Modernisation project from 2008 means significantly less water is available to go through to the watertable
- the impact of environmental flows and water trade downstream from the Goulburn Broken Catchment (this reduces the SIR's impact on the River Murray's salinity).

New and emerging issues can be accommodated by the regional institutional mechanisms, such as stakeholder involvement forums and monitoring, evaluation and reporting processes that are in place, and by the very strong relationships that exist.

Changes since 1990 mean that the SIR is better equipped to withstand a return to a run of wet years in terms of salinity.

Land health including dryland salinity

Continued high rainfall throughout 2010 and into early 2011 has caused some concern with the unexpected bore response in some parts of the Catchment. The rapid reconnection of surface and groundwater systems flies in the face of our conceptualisations and has important implications for how salinity manifests as a problem, especially if we are entering an era of unstable seasonal patterns (as climate models are predicting).

The long-term threat to the River Murray remains, driven by groundwater intrusions into the main waterways of the Catchment.

There has been a mixed response to the drying climate in the riverine plains: groundwater levels in some areas continue to rise (and remain vulnerable) while in other areas increased groundwater use and lower inflows cause them to fall.

Invasive plants and animals

Significant bushfires in recent years, including the catastrophic February 2009 Black Saturday bushfires, improved access to weed and pest animal infestations, and, coupled with targeted bushfire recovery funding, resulted in many effective control programs.

Terrestrial and aquatic environments remain vulnerable to new and emerging weeds and land managers must remain vigilant to ensure early identification of new infestations.

While regional priorities for pest management have been identified, our capacity to deliver programs has declined in some areas.

Some significant weeds require active management to contain their spread and impact on environmental, social and economic values of waterways.

Environmental stewardship

The method for measuring stewardship has not been thoroughly determined. The total number of whole farm plans completed in the SIR is 4,090, covering 283,636 hectares or 89.5 per cent of the irrigated area.

Community capacity

Government and regional communities' objectives are clearly aligned:

- for every dollar invested by government, regional communities (including landholders) contribute one dollar, despite the continuing climatic challenges
- Goulburn Broken regional community has a wide reputation for delivering onground changes to improve its natural resources, which reflects the strength of relationships between its many and varied individuals and organisations
- Goulburn Broken CMA's Municipal Catchment Coordinator is supported by municipalities in the SIR.

Uniform regulatory backing has been developed across municipalities in SIR: Uniform Planning Regulations and New Irrigation Development Guidelines.

The post-fire recovery has highlighted deficiencies in accountabilities and commitments to preserve native vegetation. This needs to be urgently addressed to prevent continued large-scale unauthorised clearing.

Despite the devastating impact of the Black Saturday bushfires on the Catchment and its people, the community is taking action to recover, with Landcare a significant influence.

Following the 2010-11 floods, discussions between the Goulburn Broken CMA and local government authorities have strengthened the partnership approach to flood response. A flood damage report has been prepared.

The Goulburn Broken CMA has been represented in steering committees and consultation sessions during development of local government authorities' environment strategies.

Targeting of landholders has improved markedly due to better knowledge of agency and landowner relationships.

Corporate memory at all levels is a major problem because of rapid staff turnover, consistent with the challenge that has emerged in the western world since 1990 in all jurisdictions: better information systems and legacy documents are being built to inform new staff quickly so they can more readily respond to needs.

Corporate Plan key performance indicators

The Goulburn Broken CMA Board set the following performance areas and indicators for 2010-11 in the Goulburn Broken CMA's 2010-11 to 2014-15 Corporate Plan.

Performance area	Key performance indicator	Target	Progress
Governance			
Board performance	Complete and submit an annual board performance assessment report, according to any Ministerial guidelines issued.	By 31 August annually.	Achieved. Submitted 18 August 2010.
	Participation by board members in development activities.	All board members participate in development activities.	Achieved.
Board charter	Develop and implement a board charter that as a minimum: <ul style="list-style-type: none"> includes a requirement for the regular review of the board's effectiveness establishes appropriate board committees including a risk and compliance committee features a provision that the board will comply with Ministerial guidelines requires the board to monitor the CMA's financial, social and environmental performance. 	A board charter with these features is reviewed by 31 August 2010.	Achieved. Current Charter contains required features.
Risk and financial management	Compliance to risk management plans for each program.	All programs have risk management plans in place. Nil non-compliances with risk management plan.	Achieved. Risk Plans in place for all material programs. Nil non-compliances.
	Annual review of governance policies and procedures.	Review all governance policies and procedures by 30 June annually.	Achieved. Review undertaken June 2011.
Efficiency and organisational performance			
Expenditure versus budget	Variation of actual to budgeted expenditure for the CMA.	Total actual expenditure is less than or equal to budgeted expenditure. For each program, actual expenditure is within +/- 10% of the budgeted expenditure.	Programs outside the 10% budgeted expenditure threshold have been delayed due to seasonal conditions and/or operate over more than one financial year.
Grant management	Administration costs of grants are minimised.	10% or less of grant funds is spent on administration.	Not achieved because State funding was reduced. In 2011-12, corporate charge for Goulburn Broken CMA-managed projects and jointly managed projects expected to be 8% and 4% respectively.
	Minimise time taken to determine grant applications.	Grant applications are determined within one month of being received.	Largely achieved within the operational budget.
Regulatory waterway/water functions	Number of days to process works on waterways permits.	95% processed within 28 days.	Councils allow longer than 28 days, often 60 days, and all permits were addressed within appropriate timeframes.
	Number of days to process referrals for any works on or in relation to a dam.	95% processed within 28 days.	Achieved.
	Number of days to process referrals from local government on flooding and controls on planning scheme amendments, and planning and building approvals.	95% processed within 28 days.	Achieved.
	Number of days to process enquiries from local government and the community on flooding.	95% processed within 28 days.	Achieved.
	Number of days to process referrals for Water Use Licences that don't meet the standard water-use conditions.	95% processed within 28 days.	Nil.
	Number of days to process enquiries from Rural Water Corporations on irrigation and drainage plans and seasonal adjustments to annual use limits.	Not applicable.	-
Number of days to process enquiries from Rural Water Corporations issuing Take and Use Licences.	Not applicable.	-	

Performance area	Key performance indicator	Target	Progress
Effectiveness and Environmental Outcomes			
Integrated River Health Management	Revise Regional River Health Strategy to plan for waterways in relation to their economic, social and environmental values.	Regional River Health Strategy revised every six years.	Addendum completed in 2010. Review process commenced.
	Develop and revise Environmental Operating Strategies and Annual Watering Plans to manage the environmental water reserve in accordance with objectives.	Environmental Operating Strategies developed or revised every five years. Annual Watering Plans approved for all Environmental Entitlements.	Board approved Annual Watering Plans for Broken Creek (July 2011), Goulburn River (June 2011) and Wetlands (March 2011).
	Implement annual river health programs and activities to improve environmental values and health of water ecosystems.	All annual river health targets and works programs achieved.	100% achieved.
Regional Catchment Strategy (RCS) implementation	Percentage of RCS annual actions implemented.	All RCS annual actions implemented.	Achieved. New RCS being developed 2011-12.
Regional Native Vegetation Plan (RNVP) implementation	Percentage of RNVP annual actions implemented.	All RNVP annual actions implemented.	Achieved.
Invasive plant and animal management	Regional Invasive Plant and Animal Strategies incorporating related priorities in all land tenures in the region.	Invasive Plant and Animal Strategies revised by 30 June every five years.	First Invasive Plant and Animal Strategy 2010-2015 endorsed by DPI October 2010. Next revision 2014-15.
Regional and statutory planning	Provide advice on dryland salinity, irrigation management, soil erosion, or any other land management issue identified in the local Municipal Strategic Statement as the referral body.	100% of referral responses provided for each issue.	Achieved.
Salinity management	Implementation and periodic review of Regional Salinity Management Plans (RSMP) and Land and Water Management Plans (LWMP).	RSMP and LWMP completed. RSMP and LWMP periodically reviewed. RSMP and LWMP include annual actions to be implemented.	Completed and being published.
	Progress against annual action targets.	All annual RSMP and LWMP actions and targets achieved.	Achieved.
	Develop regional salinity targets and corresponding works programs in accordance with the Murray-Darling Basin Salinity Agreement (for applicable CMAs only).	All annual salinity targets and works programs achieved.	Achieved.
	Annual report on the allocation and update of salt disposal entitlements submitted to the responsible Minister.	By 31 July annually or as otherwise requested by the responsible Minister.	Completed.
Regional Landcare groups, networks and other community groups	Deliver the Regional Landcare Support Strategy, including coordination of Landcare at a regional scale.	Evaluate and revise the strategy every five years.	Community Landcare Support Strategy reviewed and drafted 2009-11. State Landcare Strategy development looms and regional action plans' requirement will make current strategy redundant.

Financial report

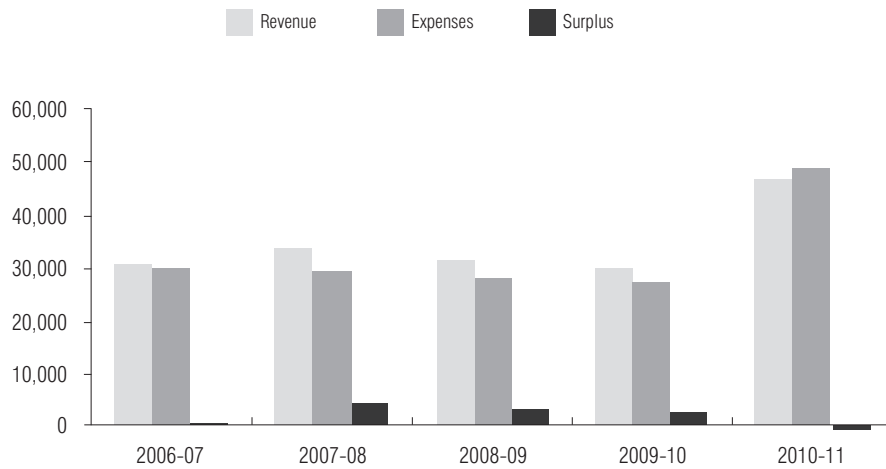
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Financial results summary: current plus past four years

	2006-07	2007-08	2008-09	2009-10	2010-11
	\$000	\$000	\$000	\$000	\$000
Income and expenditure					
State Government	15,851	19,879	20,793	19,945	16,746
Australian Government	2,255	3,072	7,170	6,831	16,175
National Action Plan	10,628	8,568	1,095	-	-
Government contributions	29,209	31,838	29,387	26,776	32,921
Revenue from government entities	475	319	329	1,201	11,066
Other revenues	1,445	1,657	1,783	1,928	2,593
Total income	30,654	33,495	31,170	29,905	46,580
Expense	29,938	29,189	27,974	27,238	48,525
Infrastructure asset write-off	-	-	-	-	133
Interest	10	7	7	2	28
Total expenses	29,948	29,196	27,981	27,240	48,686
NET RESULT	706	4,299	3,189	2,665	(2,106)
Balance sheet items					
Current assets					
Cash	6,882	11,393	10,434	19,074	21,683
Receivables	540	1,060	6,112	1,454	4,458
Prepayments	47	60	47	16	22
Total current assets	7,469	12,513	16,593	20,544	26,163
Fixed assets	1,513	1,938	1,679	1,640	1,607
Total assets	8,982	14,451	18,272	22,184	27,770
Current liabilities					
Trade creditors	1,220	2,256	1,690	3,676	4,309
Unearned revenue	-	-	-	-	5,340
Borrowings	74	57	46	37	30
Accruals	1,639	1,434	2,322	1,424	3,006
Provisions	558	867	1,133	1,327	1,428
Total current liabilities	3,491	4,614	5,191	6,464	14,113
Non-current liabilities					
Borrowings	70	46	43	30	29
Other	55	51	109	96	140
Total non-current liabilities	125	97	152	126	169
NET ASSETS	5,366	9,740	12,929	15,594	13,488

	2006-07 \$000	2007-08 \$000	2008-09 \$000	2009-10 \$000	2010-11 \$000
Equity items					
Contributed capital	4,134	4,209	4,209	4,209	4,209
Reserves	1,232	5,531	8,720	11,385	9,279
TOTAL EQUITY	5,366	9,740	12,929	15,594	13,488
Cash flow items					
Net operating activities	(775)	5,378	(679)	8,986	3,089
Net investing activities	(365)	(862)	(211)	(295)	(437)
Net financing activities	(80)	(5)	(69)	(51)	(43)
Net cash movement	(1,220)	4,511	(959)	8,640	2,609

Financial summary 2006-07 to 2010-11, \$000



Significant changes in financial results for 2010-11

	Original Corporate Plan April 2010 \$000	Corporate Plan November 2010 ⁱ \$000	Actual \$000
Statement of financial performance			
Total revenue	18,238	57,595	46,580
Total expenditure	25,997	57,710	48,686
Net result	(7,759)	(115)	(2,106)
Statement of financial position			
Cash and receivables	11,234	28,529	26,141
Other	42	20	22
Non-current assets	1,847	1,533	1,607
Total assets	13,123	30,082	27,770
Liabilities			
Current	3,030	14,501	14,113
Non-current	112	102	169
Total liabilities	3,142	14,603	14,282
Net assets	9,982	15,479	13,488

ⁱ In November 2010 the Goulburn Broken CMA submitted to the Minister a major deviation to its Corporate Plan based on significant funding changes since the initial plan was prepared. The revised plan projected a small deficit of \$115,000 to the end of June 2011.

Actual revenue is less than shown in the Corporate Plan due to the later arrival of funding for the Farm Water Program from the Commonwealth's On-Farm Irrigation Efficiency Program, which is largely offset by a similar reduction in expenditure. Additional unplanned expenditure contributing to the variance in the result was the accrual of \$1.46 million, which is to be refunded to the Department because stream flow management plans are no longer being undertaken, plus the infrastructure asset write-off of \$0.13 million and major expenditure under the River Health Program from funding carried forward from 2009-10.

Program fund source

Program	Budget Revenue \$000	Variance \$000	Actual revenue \$000	Plus funds brought forward \$000	Expended \$000	Funds carried forward \$000
Land and biodiversity	6,081	2,519	8,600	2,612	(7,582)	3,630
Catchment planning	2,271	-353	1,918	1,199	(1,658)	1,459
Sustainable irrigation	5,442	2,542	7,984	555	(7,459)	1,080
River health	5,202	1,229	6,431	11,270	(10,382)	7,319
Farm Water ⁱ	38,599	-16,952	21,647	(42)	(21,605)	-
	57,595	-11,015	46,580	15,594	(48,686)	13,488

ⁱ Farm Water Program was funded by the Northern Victoria Irrigation Renewal Project and the Commonwealth's On-Farm Irrigation Efficiency Program.

Consultancies

	2007-08	2008-09	2009-10	2010-11
Cost	\$1,654,699	\$1,871,307	\$1,788,412	2,744,7488
Number of consultants	30	24	61	27
Consultancies in excess of \$100,000	3	3	-	-

Consultants over \$100,000

Nil

VAGO

Victorian Auditor-General's Office

INDEPENDENT AUDITOR'S REPORT

To the Board Members, Goulburn Broken Catchment Management Authority

The Financial Report

The accompanying financial report for the year ended 30 June 2011 of Goulburn Broken Catchment Management Authority which comprises the operating statement, statement of comprehensive income, balance sheet, statement of changes in equity, cash flow statement, notes comprising a summary of significant accounting policies and other explanatory information, and the certification to the financial statements has been audited.

The Board Members' Responsibility for the Financial Report

The Board Members of the Goulburn Broken Catchment Management Authority are responsible for the preparation and fair presentation of the financial report in accordance with Australian Accounting Standards, including the Australian Accounting Interpretations, and the financial reporting requirements of the *Financial Management Act 1994*, and for such internal control as the Board Members determine is necessary to enable the preparation of the financial report that is free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

As required by the *Audit Act 1994*, my responsibility is to express an opinion on the financial report based on the audit, which has been conducted in accordance with Australian Auditing Standards. Those Standards require compliance with relevant ethical requirements relating to audit engagements and that the audit be planned and performed to obtain reasonable assurance about whether the financial report is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial report. The audit procedures selected depend on judgement, including the assessment of the risks of material misstatement of the financial report, whether due to fraud or error. In making those risk assessments, consideration is given to the internal control relevant to the entity's preparation and fair presentation of the financial report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made by the Board, as well as evaluating the overall presentation of the financial report.

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

Independence

The Auditor-General's independence is established by the *Constitution Act 1975*. The Auditor-General is not subject to direction by any person about the way in which his powers and responsibilities are to be exercised. In conducting the audit, the Auditor-General, his staff and delegates complied with all applicable independence requirements of the Australian accounting profession.

Level 24, 35 Collins Street, Melbourne Vic. 3000

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Auditing in the Public Interest

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Independent Auditor's Report (continued)

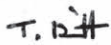
Opinion

In my opinion, the financial report presents fairly, in all material respects, the financial position of the Goulburn Broken Catchment Management Authority as at 30 June 2011 and of its financial performance and its cash flows for the year then ended in accordance with applicable Australian Accounting Standards, including the Australian Accounting Interpretations, and the financial reporting requirements of the *Financial Management Act 1994*.

Matters Relating to the Electronic Publication of the Audited Financial Report

This auditor's report relates to the financial report of the Goulburn Broken Catchment Management Authority for the year ended 30 June 2011 included both in the Goulburn Broken Catchment Management Authority's annual report and on the website. The Board Members of the Goulburn Broken Catchment Management Authority are responsible for the integrity of the Goulburn Broken Catchment Management Authority's website. I have not been engaged to report on the integrity of the Goulburn Broken Catchment Management Authority's website. The auditor's report refers only to the subject matter described above. It does not provide an opinion on any other information which may have been hyperlinked to/from these statements. If users of the financial report are concerned with the inherent risks arising from publication on a website, they are advised to refer to the hard copy of the audited financial report to confirm the information contained in the website version of the financial report.

MELBOURNE
19 August 2011

For 
D D R Pearson
Auditor-General

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Auditing in the Public Interest

Financial statements

Goulburn Broken Catchment Management Authority

Australian Business Number (ABN): 89 184 039 725

Certification to the financial statements

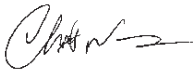
We hereby certify that the financial statements of the Goulburn Broken Catchment Management Authority (CMA) have been prepared in accordance with the Standing Directions 4.2 of the Financial Management Act 1994, applicable Australian Accounting Standards, Interpretations and other mandatory professional reporting requirements.

We further state that, in our opinion, the information set out in the Operating Statement, Statement of Comprehensive Income, Balance Sheet, Statement of Changes in Equity, Cash Flow Statement and notes to and forming part of the financial statements, presents fairly the financial transactions during the year ended 30 June 2011 and the financial position of the Goulburn Broken CMA as at 30 June 2011.

We are not aware of any circumstances which would render any particulars included in the financial statements to be misleading or inaccurate.



P F Ryan
Chair



C P Norman
Chief Executive Officer



S D Gibney
Business Manager

18 August 2011

Operating statement for the financial year ended 30 June 2011

	Note	2011 \$000	2010 \$000
Revenue from operating activities			
Government contributions	3	32,921	26,776
Revenue from government entities	3	11,066	1,201
Other revenues from ordinary activities	3	2,486	1,825
		46,473	29,802
Revenue from non-operating activities	3	107	103
TOTAL REVENUE		46,580	29,905
Expenses from operating activities			
Operating costs to works programs	4a	(46,775)	(25,555)
Amortisation of leased assets	4c	(13)	(41)
Depreciation	4b	(464)	(425)
Corporate administration expenses	4d	(1,056)	(1,014)
Interest		(28)	(2)
Infrastructure asset write-off	4e	(133)	-
Occupancy expenses		(217)	(203)
TOTAL EXPENSES		(48,686)	(27,240)
NET RESULT FOR THE PERIOD		(2,106)	2,665

The accompanying notes form part of these financial statements.

Statement of comprehensive income for the financial year ended 30 June 2011

	Note	2011 \$000	2010 \$000
Net result for the period		(2,106)	2,665
Other comprehensive income for the period.		-	-
Total comprehensive income for the period		(2,106)	2,665

The accompanying notes form part of these financial statements.

Balance sheet as at 30 June 2011

	Note	2011 \$000	2010 \$000
Assets			
Current assets			
Cash and cash equivalents	5	21,683	19,074
Receivables	6	4,458	1,454
Prepayments		22	16
Total current assets		26,163	20,544
Non-current assets			
Property, plant and equipment	7	1,607	1,640
Total non-current assets		1,607	1,640
Total assets		27,770	22,184
Liabilities			
Current liabilities			
Payables	8	7,315	5,100
Unearned revenue	9	5,340	-
Interest bearing liabilities	10	30	37
Employee benefits	11	1,428	1,327
Total current liabilities		14,113	6,464
Non-current liabilities			
Interest bearing liabilities	10	29	30
Employee benefits	11	140	96
Total non-current liabilities		169	126
Total liabilities		14,282	6,590
Net assets		13,488	15,594
Equity			
Contributed equity	13	4,209	4,209
Accumulated funds	14	-	-
Reserve	15	9,279	11,385
Total equity		13,488	15,594

The accompanying notes form part of these financial statements.

Statement of changes in equity for the financial year ended 30 June 2011

	Note	Contributors by owners \$000	Reserves \$000	Accumulated funds \$000	Total \$000
Balance at 1 July 2009		4,209	8,720	-	12,929
Restated total equity at beginning of the financial year		4,209	8,720	-	12,929
Net result for the period		-	2,665	-	2,665
Restated total comprehensive income for the year		-	2,665	-	2,665
Balance at 30 June 2010		4,209	11,385	-	15,594
Net result for the period		-	(2,106)	-	(2,106)
Balance at 30 June 2011		4,209	9,279	-	13,488

The above statement of changes in equity should be read in conjunction with the accompanying notes.

Cash flow statement for the financial year ended 30 June 2011

	Note	2011 \$000	2010 \$000
Cash flow from operating activities			
Government contributions		32,198	31,403
Revenue from other Government Entities		11,925	1,150
Payments to suppliers and employees		(43,259)	(27,719)
GST (remitted to) received from Australian Tax Office		(883)	1,052
Interest received		861	571
Interest paid		(3)	(2)
Other revenue		2,250	2,531
Net cash provided by (used in) operating activities	21b	3,089	8,986
Cash flow from financing activities			
Repayment of finance lease liabilities		(43)	(51)
Net cash provided by (used in) finance activities		(43)	(51)
Cash flow from investing activities			
Proceeds from sale of property, plant and equipment		474	471
Payment for property, plant and equipment		(911)	(766)
Net cash provided by (used in) investing activities		(437)	(295)
Net (decrease) / increase in cash held		2,609	8,640
Cash and cash equivalents at beginning of year		19,074	10,434
Cash and cash equivalents at end of year	21a	21,683	19,074

The accompanying notes form part of these financial statements.

Notes to the financial statements for the year ended 30 June 2011

Note 1: Significant accounting policies

a Basis of accounting

General

This financial report of Goulburn Broken Catchment Management Authority (CMA) is a general purpose financial report that consists of an Operating Statement, Statement of Comprehensive Income, Balance Sheet, Statement of Changes in Equity, Cash Flow Statement and notes accompanying these statements. The general purpose financial report complies with Australian Accounting Standards (AASs). Interpretations and other authoritative pronouncements of the Australian Accounting Standards Board and the requirements of the *Financial Management Act 1994* and applicable Ministerial Directions. This financial report has been prepared on an accrual and going concern basis.

Where applicable, those paragraphs of the AAS's applicable to Not for Profit entities have been applied. The annual financial statements were authorised for issue by the Chief Executive Officer on 18 August 2011.

Accounting policies

Unless otherwise stated, all accounting policies applied are consistent with those of the prior year. Where appropriate, comparative figures have been amended to accord with current presentation and disclosure made of material changes to comparatives.

Classification between current and non-current

In the determination of whether an asset or liability is current or non-current, consideration is given to the time when each asset or liability is expected to be realised or paid. The asset or liability is classified as current if it is expected to be turned over within the next twelve months, being the Goulburn Broken CMA's operational cycle, see note 1(j) for a variation in relation to employee benefits.

Rounding

Unless otherwise stated, amounts in the report have been rounded to the nearest thousand dollars.

Historical cost convention

The financial statements have been prepared under the historical cost convention, except where specifically stated in Note 1(d).

Critical accounting estimates

The preparation of financial statements in conformity with AAS's requires the use of certain critical accounting estimates that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates, it also requires management to exercise its judgement in the process of applying the Goulburn Broken CMA's accounting policies.

Financial statement presentation

The entity has applied the revised AASB 101 *Presentation of Financial Statements* which became effective for reporting periods beginning on or after 1 January 2009. The revised standard requires the separate presentation of a statement of comprehensive income and a statement of changes in equity. All non-owner changes in equity must now be presented in the statement of comprehensive income. As a consequence, the entity had to change the presentation of its financial statements. Comparative information has been re-presented so that it is also in conformity with the revised standard. Items included in this financial report are measured using the currency of the primary economic environment in which the Goulburn Broken CMA operates ('the functional currency'). The financial statements are presented in Australian dollars, which is Goulburn Broken CMA's functional and presentation currency.

b Revenue recognition

Government contributions

Under *AASB 1004-Contributions*, Government grants of a recurrent nature are brought to account on the earlier of receipt or the right to receive the contributions. The full grant receivable is reflected in the operating statement as government contributions. Instalment receipts on the grant are credited to the receivable account. Consequently, at year-end outstanding instalments on these grants are reflected as receivable from Government.

The value of all goods and services received free of charge are recognised as revenue when the Goulburn Broken CMA gains control of them. The benefits derived from these goods and services are recorded at their fair values in the financial statements.

Grants and contributions for capital works from all sources are disclosed in the operating statement as operating revenue as these grants and contributions relate to expenditure on works written off in the year the expenditure is incurred. Any grants and contributions received from the Victorian State Government which the relevant Ministers have indicated are in the nature of owners' contributions, are accounted for as Equity – Contributed Capital.

On-Farm Irrigation Efficiency Program

During the year Goulburn Broken CMA was appointed as the 'delivery partner' for both the Australian Government and Northern Victoria Irrigation Renewal Project (NVIRP), under the On-Farm Irrigation Efficiency Program.

In its role as the 'delivery partner', Goulburn Broken CMA receives funding to make payments to approved irrigators under an Infrastructure Works Deed whereby irrigators undertake works on their land to generate permanent water savings half of which are transferred to the Australian Government or NVIRP.

Goulburn Broken CMA reflects as income funding it has received to match the liability it must pay under the Infrastructure Works Deed.

Revenue received by Goulburn Broken CMA in advance of paying liabilities under the Infrastructure Works Deed is taken to unearned revenue.

Other

Gains or losses on disposal of non-current assets are calculated as the difference between the gross proceeds on sale and their written down value.

Interest

Interest is recognised as revenue when earned.

Notes to the financial statements for the year ended 30 June 2011

c Borrowing costs

Borrowing costs are recognised as expenses in the period in which they are incurred. Borrowing costs include interest on finance lease charges.

d Recognition and measurement of assets

Property, plant and equipment represent non-current physical assets comprising infrastructure, buildings, plant, equipment and motor vehicles, used by the Goulburn Broken CMA in its operations. Items with a cost or value in excess of \$1,000 and a useful life of more than one year are recognised as an asset. All other assets acquired are expensed.

Acquisition

The purchase method of accounting is used for all acquisitions of assets. Cost is measured as fair value of the assets given, at the date of exchange plus costs directly attributable to the acquisition. Assets acquired at no cost or for nominal consideration by the Goulburn Broken CMA are recognised at fair value at the date of acquisition.

Repairs and maintenance

Routine maintenance, repair costs and minor renewal costs are expensed as incurred. Where the repair relates to the replacement of a component of an asset and the cost exceeds the capitalisation threshold, the cost is capitalised and depreciated.

Measurement of non-current physical assets

All non-current physical assets except water infrastructure assets are recognised initially at cost and subsequently revalued at fair value less accumulated depreciation and impairment in accordance with the requirements of Financial Reporting Direction (FRD) 103D. Revaluations are conducted in accordance with FRD 103D.

Valuation of noncurrent physical assets

Infrastructure and buildings are measured at cost.

Plant and equipment

Plant equipment and motor vehicles are measured at fair value.

Impairment of assets

All assets are assessed annually for indicators of impairment.

If there is an indication of impairment, the assets concerned are tested as to whether their carrying value exceeds their recoverable amount. Where an asset's carrying amount exceeds its recoverable amount, the difference is written-off by a charge to the operating statement except to the extent that the write down can be debited to an asset revaluation reserve amount applicable to that class of asset.

The recoverable amount for most assets is measured at the higher of depreciated replacement cost and fair value less costs to sell. Recoverable amount for assets held primarily to generate net cash inflows is measured at the higher of the present value of future cash flows expected to be obtained from the asset and fair value less costs to sell. It is deemed that, in the event of the loss of an asset, the future economic benefits arising from the use of the asset will be replaced unless a specific decision to the contrary has been made.

A reversal of an impairment loss

A reversal of an impairment loss on a revalued asset is credited directly to equity under the heading revaluation reserve. However, to the extent that an impairment loss on the same class of asset was previously recognised in the operating statement, a reversal of that impairment loss is also recognised in the operating statements.

e Depreciation and amortisation of non-current assets

All non-current physical assets that have a limited useful life are depreciated. Where assets have separate identifiable components that have distinct useful lives and/or residual values, a separate depreciation rate is determined for each component. Depreciation is calculated using the straight-line method to allocate their costs, net of their residual values, over their estimated useful lives, commencing from the time the asset is held ready for use. The assets' residual values and useful lives are reviewed and adjusted, if appropriate, at each balance sheet date. Major depreciation rates used are listed below and are consistent with prior year, unless otherwise stated:

Asset class	Depreciation rate, %
Buildings	2.5
Plant and equipment	10 to 40
Motor vehicles	20
Infrastructure assets	2

f Leased assets

Leases of property, plant and equipment where the Goulburn Broken CMA has substantially all the risks and benefits incidental to the ownership of the asset, but not the legal ownership, are classified as finance leases. Finance leases are capitalised, recording an asset and a liability equal to the present value of the minimum lease payments, including any guaranteed residual values. Leased assets are amortised on a straight line basis over their estimated useful lives where it is likely that the Goulburn Broken CMA will obtain ownership of the asset at the end of the lease. Lease payments are allocated between the reduction of the lease liability and the lease interest expense for the period.

Lease payments for operating leases, where substantially all the risks and benefits remain with the lessor, are charged as an expense in the periods in which they are incurred.

Leasehold improvements

Leasehold improvements are recognised at cost and are amortised over the unexpired period of the lease or the estimated useful life of the improvement, whichever is the shorter. At balance date, leasehold improvements are amortised over a 5 year period.

Notes to the financial statements for the year ended 30 June 2011

g Cash and cash equivalent assets

For the purposes of the Cash Flow Statement, cash and cash equivalents include cash on hand, deposits held at call with financial institutions, other short-term highly liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value and bank overdrafts. Bank overdrafts are shown within interest bearing liabilities on the balance sheet.

h Receivables

Receivables are brought to account at fair value and subsequently measured at amortised cost, less allowance for impaired receivables. Receivables due from the government are due within 14 days; other receivables are due within 30 days. Collectability of debtors is reviewed on an ongoing basis. Debts which are known to be uncollectible are written off. A provision for impaired receivables is recorded when some doubt as to collection exists.

i Trade and other payables

These amounts represent liabilities for goods and services provided to the Goulburn Broken CMA prior to the end of the financial year, which are unpaid at financial year end. The amounts are unsecured and are usually paid within 30 days of recognition.

j Employee benefits

Wages and salaries and annual leave

Liabilities for wages and salaries and annual leave to be settled within 12 months of the reporting date are recognised in employee benefits liabilities in respect of employees' services up to the reporting date and are measured at the amounts expected to be paid when the liabilities are settled at their nominal values. Employee benefits which are not expected to be settled within 12 months are measured as the present value of the estimated future cash outflows to be made by the entity, in respect of services rendered by employees up to the reporting date. Regardless of the expected timing of settlements, provisions made in respect of employee benefits are classified as a current liability, unless there is an unconditional right to defer the settlement of the liability for at least 12 months after the reporting date, in which case it would be classified as a non-current liability.

Long service leave

Current liability – unconditional long service leave (representing seven or more years of continuous service) is disclosed as a current liability even where the Goulburn Broken CMA does not expect to settle the liability within 12 months because it does not have the unconditional right to defer settlement of the entitlement should an employee take leave within 12 months.

The components of this current long service leave liability are measured at

- present value – component that the Goulburn Broken CMA does not expect to settle within 12 months; and
- nominal value – component that the Goulburn Broken CMA expects to settle within 12 months.

Non-current liability – conditional long service leave (representing less than seven years of continuous service) is disclosed as a non-current liability. There is an unconditional right to defer the settlement of the entitlement until the employee has completed the requisite years of service. Conditional long service leave is required to be measured at present value. In calculating present value, consideration is given to expected future wage and salary levels, experience of employee departures and periods of service. Expected future payments are discounted using market yields, at the reporting date on national government bonds with terms to maturity and currency that match, as closely as possible, the estimated future cash outflows.

Superannuation

The amount charged to the operating statement in respect of superannuation represents the contributions made by the Goulburn Broken CMA to the superannuation plan in respect to the current services of current entity staff. Superannuation contributions are made to the plans based on the relevant rules of each plan.

The Goulburn Broken CMA does not recognise any defined benefit liability in respect of the superannuation plan because the Goulburn Broken CMA has no legal or constructive obligation to pay future benefits relating to its employees, its only obligation is to pay superannuation contributions as they fall due. The Department of Treasury and Finance administers and discloses the State's defined benefit liabilities in its financial report. See Note 12 for more details on superannuation.

Employee benefit on-costs

Employee benefit on-costs, including payroll tax and workcover costs are recognised and included in employee benefit liabilities and costs when the employee benefits to which they relate are recognised as liabilities.

Performance payments

Performance payments for the Goulburn Broken CMA's Executive Officers are based on a percentage of the annual salary package provided under their contracts of employment. A liability is recognised and is measured as the aggregate of the amounts accrued under the terms of the contracts to balance date.

k Goods and services tax

Revenues, expenses and assets are recognised net of goods and services tax (GST), except where the amount of GST incurred is not recoverable from the Australian Taxation Office (ATO). In these circumstances, the GST is recognised as part of the cost of acquisition of the asset or as part of an item of expense.

Receivables and payables are stated inclusive of GST. The net amount of GST recoverable from, or payable to, the ATO is included as a current asset or liability in the balance sheet.

Cash flows arising from operating activities are disclosed in the Cash Flow Statement on a gross basis i.e. inclusive of GST. The GST component of cash flows arising from investing and finance activities which is recoverable or payable to the taxation authority is classified as operating cash flows.

Government appropriations

The Department of Sustainability and Environment treat grant contributions to the Goulburn Broken CMA for the agreed works program to be government appropriations. Consequently as this does not constitute a taxable supply, the Goulburn Broken CMA receives no GST on amounts paid by the Department.

Notes to the financial statements for the year ended 30 June 2011

l Contributed capital

Grants and contributions received from the Victorian State Government which were originally appropriated by the Parliament as additions to net assets or where the Minister for Finance and the Minister for Environment and Climate Change have indicated are in the nature of owners' contributions, are accounted for as Equity – Contributed Capital.

m Changes in accounting policy

The accounting policies are consistent with those of the previous year, unless stated otherwise.

n Financial instruments

Recognition

Financial instruments are initially measured at fair value, plus in the case of a financial asset or financial liability not at fair value through profit and loss, transaction costs that are directly attributable to the acquisition or the issue of the financial asset or liability. Subsequent to initial recognition, the financial instruments are measured as set out below:

Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss are financial assets held for trading. A financial asset is classified in this category if acquired principally for the purpose of selling in the short term. Assets in this category are classified as current assets.

Receivables

Receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are included in current assets, except for those with maturities greater than 12 months after the reporting date which are classified as non-current assets. Receivables are included in trade and other receivables in the balance sheet.

Held-to-maturity investments

These investments have fixed maturities and it is the Goulburn Broken CMA's intention to hold these investments to maturity. Any held-to-maturity investments held by the Goulburn Broken CMA are stated at cost.

Impairment of financial assets

At each reporting date, the Goulburn Broken CMA assesses whether there is objective evidence that a financial instrument has been impaired. Impairment losses are recognised in the Operating Statement.

o Comparative amounts

Where necessary, figures for the previous year have been reclassified to facilitate comparison.

p Interest bearing liabilities

Borrowings are initially recognised at fair value, net of transaction costs incurred. Borrowings are subsequently measured at amortised cost. Any difference between the proceeds (net of transaction costs) and the redemption amount is recognised in the operating statement over the period of the borrowings, using the effective interest method.

Borrowings are classified as current liabilities unless the Goulburn Broken CMA has an unconditional right to defer settlement of the liability for at least 12 months after the balance sheet date.

q New accounting standards and interpretations

New Accounting Standards and Interpretations issued that are not yet effective

Certain new accounting standards and interpretations have been published that are not mandatory for the 30 June 2011 reporting period. As at 30 June 2011, the following standards and interpretations had been issued but were not mandatory for financial year ending 30 June 2011. The Goulburn Broken CMA has not and does not intend to adopt these standards early.

Notes to the financial statements for the year ended 30 June 2011

Standard / Interpretation	Summary	Applicable for annual reporting periods beginning on or after	Impact on financial statements
AASB 9 Financial Instruments and AASB 2009-11 Amendments to Australian Accounting Standards arising from AASB 9 and AASB 210:7 Amendments to Australian Accounts Standards arising from AASB 9 (December 2010)	AASB 9 Financial Instruments addresses the classification and measurement of financial assets and is likely to affect the entity's accounting for its financial assets. The standard is not applicable until 1 January 2013 but is available for early adoption.	1 January 2013	The Goulburn Broken CMA is yet to assess its full impact. However, initial indications are that it may affect the Goulburn Broken CMA's accounting for its available-for-sale financial assets, since AASB 9 only permits the recognition of fair value gains and losses in other comprehensive income if they relate to equity investments that are not held for trading. Fair value gains and losses on available-for-sale debt investments, for example, will therefore have to be recognised directly in profit or loss.
Revised AASB 124 Related Party Disclosures and AASB 2009-12 Amendments to Australian Accounting Standards	In December 2009 the AASB issued a revised AASB 124 Related Party Disclosures. It is effective for accounting periods beginning on or after 1 January 2011 and must be applied retrospectively. The amendment removes the requirement for government-related entities to disclose details of all transactions with the government and other government-related entities and clarifies and simplifies the definition of a related party.	1 January 2011	When the amendments are applied, the Goulburn Broken CMA and the parent will need to disclose any transactions between its subsidiaries and its associates. However, it has yet to put systems into place to capture the necessary information. It is therefore not possible to disclose the financial impact, if any, of the amendment on the related party disclosures.
AASB 2009-14 Amendments to Australian Interpretation – Prepayments of a Minimum Funding Requirement	In December 2009, the AASB made an amendment to Interpretation 14 The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction. The amendment removes an unintended consequence of the interpretation related to voluntary prepayments when there is a minimum funding requirement in regard to the entity's defined benefit scheme. It permits entities to recognise an asset for a prepayment of contributions made to cover minimum funding requirements.	1 January 2011	The Goulburn Broken CMA does not make any such prepayments. The amendment is therefore not expected to have any impact on the Goulburn Broken CMA's financial statements.
AASB 1053 Application of Tiers of Australian Accounting Standards and AASB 2010-2 Amendments to Australian Accounting Standards arising from Reduced Disclosure Requirements	On 30 June 2010 the AASB officially introduced a revised differential reporting framework in Australia. Under this framework, a two-tier differential reporting regime applies to all entities that prepare general purpose financial statements.	1 July 2013	The impact of this standard will depend on instructions provided by DTF on its applicability to the Goulburn Broken CMA. The Goulburn Broken CMA will assess its impact once DTF has provided guidance on this standard.
AASB 2010-4 Further Amendments to Australian Accounting Standards arising from Annual Improvements Project	In June 2010, the AASB made a number of amendments to Australian Accounting Standards as a result of the IASB's annual improvements project.	1 January 2011	These amendments are not expected to have any significant impact on the Goulburn Broken CMA's disclosures.
AASB 2010-6 Further Amendments to Australian Accounting Standards – Disclosures on Transfers of Financial Assets [AASB 1 & AASB 7]	In November 2010, the AASB made amendments to AASB 7 Financial Instruments: Disclosures which introduces additional disclosures in respect of risk exposures arising from transferred financial assets. The amendments will affect particularly entities that sell, factor, securitise, lend or otherwise transfer financial assets to other parties.	1 July 2011	These amendments are not expected to have any significant impact on the Goulburn Broken CMA's disclosures.

r Natural resource management sector reform

In December 2009, the Victorian Government released Securing Our Natural Future, a white paper for land and biodiversity at a time of climate change. See note 24 'Natural resource management sector reform' for potential impacts.

Notes to the financial statements for the year ended 30 June 2011

Note 2: Financial risk management objectives and policies

The Goulburn Broken CMA's activities expose it to a variety of financial risks: market risk, credit risk and liquidity risk. This note presents information about the Goulburn Broken CMA's exposure to each of these risks and the objectives, policies and processes for measuring and managing risk.

The Goulburn Broken CMA's Board has overall responsibility for the establishment and oversight of the Goulburn Broken CMA's risk management framework. The Goulburn Broken CMA's overall risk management program focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the financial performance of the Goulburn Broken CMA. The Goulburn Broken CMA uses sensitivity analysis in the case of interest rate risks.

Risk Management is carried out by a risk management committee under policies approved by the Board of Directors. The corporate division identifies, evaluates and hedges financial risks in close cooperation with the Goulburn Broken CMA's operating units. The Board complies with Department of Treasury and Finance policy covering specific areas, such as interest rate risk, credit risk and investment of excess liquidity.

2.1 Risk exposures

The main risks the Goulburn Broken CMA is exposed to through its financial instruments are as follows:

a Market risk

Market risk is the risk that changes in market prices will affect fair value of future cash flows of the Goulburn Broken CMA's financial instruments. Market risk comprises of interest rate risk and other price risk. The Goulburn Broken CMA's exposure to market risk is primarily through interest rate, there is no exposure to foreign exchange risk and no significant exposure to other price risks.

Objectives, policies and processes used for these risks are disclosed in the paragraphs below:

Interest rate risk

The Goulburn Broken CMA has minimal exposure to interest rate risk through its holding of cash assets and other financial assets. The Goulburn Broken CMA complies with Department of Treasury and Finance policies in this regard.

Other price risk

The Goulburn Broken CMA has no significant exposure to other price risk.

Market risk sensitivity analysis

The following table summarises the sensitivity of the Goulburn Broken CMA's financial assets and financial liabilities to interest rate risk.

30 June 2011	Carrying amount \$000	Interest rate risk			
		-1 per cent		+1 per cent	
		Result \$000	Equity \$000	Result \$000	Equity \$000
Financial assets					
Cash at bank	21,683	(217)	(217)	217	217
Receivables	4,458	-	-	-	-
Financial liabilities					
Payables	(7,315)	-	-	-	-
Interest bearing liabilities	(59)	-	-	-	-
Total increase/(decrease)	18,767	(217)	(217)	217	217

30 June 2010	Carrying amount \$000	Interest rate risk			
		-1 per cent		+1 per cent	
		Result \$000	Equity \$000	Result \$000	Equity \$000
Financial assets					
Cash at bank	19,074	(191)	(191)	191	191
Receivables	1,454	-	-	-	-
Financial liabilities					
Payables	(5,100)	-	-	-	-
Interest bearing liabilities	(67)	-	-	-	-
Total increase/(decrease)	15,361	(191)	(191)	191	191

Note 2: Financial risk management objectives and policies (continued)

b Credit risk

Credit risk is the risk of financial loss to the Goulburn Broken CMA as a result of a customer or counterparty to a financial instrument failing to meet its contractual obligations. Credit risk arises principally from the Goulburn Broken CMA's receivables and financial assets available for sale.

The Goulburn Broken CMA's exposure to credit risk is influenced by the individual characteristics of each customer. The receivable balance consists of business customers which are spread across a diverse range of industries. Receivable balances are monitored on an ongoing basis to ensure that exposure to bad debts is not significant. The Goulburn Broken CMA has in place a policy and procedure for the collection of overdue receivables.

c Liquidity risk

Liquidity risk is the risk that the Goulburn Broken CMA will not be able to meet its financial obligations as they fall due. The Goulburn Broken CMA's policy is to settle financial obligations within 30 days and in the event of dispute make payments within 20 days from the day of resolution.

The Goulburn Broken CMA manages liquidity risk by maintaining adequate reserves and banking facilities by continuously monitoring forecasts and actual cash flows and matching the maturity profiles of financial assets and financial liabilities.

The Goulburn Broken CMA's financial liability maturities have been disclosed in Note 22.

2.2 Fair valuation estimation

The carrying value less impairment provision of trade receivables and payables is a reasonable approximation of their fair values due to the short term nature of trade receivables. The fair value of financial liabilities for disclosure purposes is estimated by discounting the future contractual cash flows at the current market interest rate that is available to the Goulburn Broken CMA for similar financial assets.

The carrying amounts and aggregate net fair values of financial assets and financial liabilities at balance date have been provided in Note 22.

Notes to the financial statements for the year ended 30 June 2011

Note 3: Revenues

	Note	2011 \$000	2010 \$000
Revenue from operating activities			
Government contributions	3a	32,921	26,776
Revenue from Government Entities	3b	11,066	1,201
<i>Total revenue from Government & Government Entities</i>		43,987	27,977
<i>Other revenues from ordinary activities</i>			
Consulting services		94	-
Contributions from third parties		287	126
Interest		849	633
Joint activities with CMAs		626	184
Rent receivable		22	34
Seedbank		184	162
Workcover		106	86
Other		318	600
<i>Other revenues from ordinary activities</i>		2,486	1,825
Non-Operating activities			
(Loss) Gain on disposal of property, plant and equipment		107	103
Total Revenue		46,580	29,905
a Government contributions			
State Government of Victoria			
Bushfire Recovery Funding		261	939
Catchment Planning – Corporate Administration		1,536	993
Environmental Water Reserve Officers		227	370
Flood Employment Program		210	-
Floodplain Management		422	438
Healthy Waterways		1,187	1,492
Landmate		90	90
Large Scale River Restorations		1,159	1,350
Natural Disaster Funding		894	-
Natural Resource Investment Program		2,159	2,240
Recreational Fishing Grants		125	70
Recycling for Recovery		897	-
Regional Catchment Strategy		150	-
Sale of Environmental Water Quality Reserve (River Health Program)		-	4,177
Salinity Infrastructure		2,444	3,239
Second Generation Landcare		336	545
Sustainable Irrigated Ag & Land Management		1,931	1,727
Sustainable Irrigation Linking Farms		732	1,000
VAPSGL (Regional Landcare Coord.)		150	-
VEFMAP Monitoring Program		148	-
Water Smart Farms		1,289	1,141
Water Statutory Function		353	-
Other		46	134
		16,746	19,945
Australian Government			
Caring for Our Country – Core & Transitional		3,993	4,471
Caring for Our Country – Competitive		50	-
Caring for Our Country - Bushfire Recovery		-	2,260
DSEWP&C – On-Farm Irrigation Efficiency Program		11,982	-
DAFF Regional Landcare Facilitator funding		150	100
		16,175	6,831
Total Government Contributions		32,921	26,776

Note 3: Revenues (continued)

	Note	2011 \$000	2010 \$000
b Revenue from Government Entities			
Victorian State Government			
NVIRP On-Farm Irrigation Efficiency Program		9,595	-
NVIRP Whole Farm Plan Grants/Other		1,143	906
		10,738	906
Australian Government			
Murray-Darling Basin Authority		328	295
Total Revenue from Government Entities		11,066	1,201

Note 4: Expenses

Net result for the period has been determined after:

a Operating costs to works programs			
Land and Biodiversity		7,292	4,698
Catchment Planning		389	2,407
Sustainable Irrigation		7,414	10,284
River Health		10,085	8,166
On-farm Irrigation Efficiency Program		21,595	-
Total operating costs to works program		46,775	25,555
b Depreciation of non-current assets			
Buildings		2	1
Plant and equipment and other		134	76
Motor vehicles		328	348
Total depreciation		464	425
c Amortisation of leased assets		13	41
d Corporate administration expenses			
Implementation Committees		51	44
Audit fees – internal audit		35	29
– Auditor General for audit of financial statements		12	12
Board governance		120	181
Salaries and on-costs		802	709
Other		36	39
Total administration expenses		1,056	1,014

e Infrastructure Asset Write-off

During the year, the Goulburn Broken CMA undertook a review of assets for recognition of any impairment charges in line with the Australian Accounting Standard AASB 136. As a result of this review the Board approved the write-off of the infrastructure asset at Dowdle Swamp, in the amount of \$132,596.

f Employee related expenses

These expenses have been allocated to:

i Operating costs to works program		4,560	3,603
ii Administration expenses		802	709
iii Governance		92	90
Total employee related expenses		5,454	4,402

Notes to the financial statements for the year ended 30 June 2011

Note 5: Cash and cash equivalents

	Note	2011 \$000	2010 \$000
Cash at bank and on hand		21,683	19,074

Cash at bank bears interest rates between 4.70% and 4.75% (2010: 4.15% and 4.60%). All of these funds are restricted in that they are held to be spent on a range of programs which the Goulburn Broken CMA currently has underway.

Note 6: Receivables

Government grants receivable		2,463	122
GST recoverable – On-Farm Irrigation Efficiency Program payments due		1,045	-
Net GST amount due from Australian Tax Office		446	633
Trade debtors		422	605
Accrued interest		82	94
Total receivables		4,458	1,454

a Provision for impaired receivables

As at 30 June 2011, current receivables of the Goulburn Broken CMA with a nominal value of \$nil (2010: \$nil) were impaired.

The ageing of these receivables is as follows:

three to six months		-	-
over six months		-	-
Total		-	-

b Past due but not impaired receivables

As of 30 June 2011, government receivables of \$68,952 (2010: \$68,031) and other receivables of \$24,968 (2010: \$10,848) were past due but not impaired. These relate to entities for which there is no recent history of default. The ageing analysis of these receivables is as follows:

Three to six months		69	65
Over six months		25	13
Total		94	78

The other amounts within receivables do not contain impaired assets and are not past due. Based on credit history, it is expected that these amounts will be received when due.

Movements in the provision for impaired receivables are as follows:

At 1 July		-	-
Provision for impairment recognised during the year		-	-
Receivables written off during the year as uncollectible		-	-
Unused amount reversed		-	-
Total		-	-

Note 7: Property plant and equipment

	Note	2011 \$000	2010 \$000
Buildings at fair value		44	44
Less accumulated depreciation		(44)	(42)
		-	2
Plant and equipment at fair value		935	926
Less accumulated depreciation		(745)	(613)
		190	313
Motor vehicles at fair value		1,689	1,586
Less accumulated depreciation		(327)	(451)
		1,362	1,135
Office and computer equipment acquired under finance lease at fair value		250	290
Accumulated amortisation		(195)	(236)
		55	54
Dowdle Swamp floodway at cost		170	170
Less accumulated depreciation		(37)	(34)
Less Infrastructure asset write-off		(133)	-
		-	136
Total property, plant and equipment		1,607	1,640

Movements during the reporting period

Movement in the carrying amounts for each class of property, plant and equipment between the beginning and the end of the current financial year.

	Dowdle Swamp Floodway \$000	Buildings \$000	Plant and equipment \$000	Motor vehicles \$000	Equipment under finance lease \$000	Total \$000
2010-11						
Opening written down value at 1 July 2010	136	2	313	1,135	54	1,640
Additions	-	-	8	903	35	946
Disposals	-	-	-	(348)	(21)	(369)
Asset write-off	(133)	-	-	-	-	(133)
Depreciation expense	(3)	(2)	(131)	(328)	-	(464)
Amortisation	-	-	-	-	(13)	(13)
Closing written down value at 30 June 2011	-	-	190	1,362	55	1,607
2009-10						
Opening written down value at 1 July 2009	139	3	313	1,158	66	1,679
Additions	-	-	74	692	29	795
Disposals	-	-	-	(368)	-	(368)
Depreciation expense	(3)	(1)	(74)	(347)	-	(425)
Amortisation	-	-	-	-	(41)	(41)
Closing written down value at 30 June 2010	136	2	313	1,135	54	1,640

Notes to the financial statements for the year ended 30 June 2011

Note 8: Payables

	Note	2011 \$000	2010 \$000
Trade creditors		4,309	3,676
Accruals		3,006	1,424
Total payables		7,315	5,100

Note 9: Unearned Revenue

Funding from Australian Government		4,119	-
Funding from NVIRP		1,221	-
Total		5,340	-

Funding in advance to Goulburn Broken CMA to pay On-Farm Irrigation Efficiency Program proponents is taken to unearned revenue and released to the income and expenditure account to match Goulburn Broken CMA expenditure liabilities under the Program.

Note 10: Interest bearing liabilities

Current			
Secured			
Finance lease liability	16b	30	37
Non-current			
Secured			
Finance lease liability	16b	29	30
Total interest bearing liabilities		59	67
Assets pledged as security		-	-
Non current finance lease office and computer equipment		59	67

Note 11: Employee benefits

Current			
Annual leave and unconditional long service leave entitlements representing seven years of continuous service:			
Employee benefits expected to be settled within 12 months, after the end of the period, measured at nominal value		400	354
Employee benefits expected to be settled after 12 months, after the end of the period, measured at present value		1,028	973
Total current		1,428	1,327
Non-current			
Conditional long service leave measured at present value		140	96
Total employee benefits		1,568	1,423

All annual leave is treated as a current liability. Long service leave entitlement representing seven years plus continuous service is also treated as a current liability. Long service leave entitlement representing less than seven years continuous service is treated as a non-current liability.

The following assumptions were adopted in measuring the present value of long service leave entitlements:

Weighted average increase in employee costs		4.60%	4.48%
Weighted average discount rates		4.93%	4.81%
Weighted average settlement period		10 years	10 years

Notes to the financial statements for the year ended 30 June 2011

Note 12: Superannuation

Goulburn Broken CMA makes employer superannuation contributions in respect of its employees to the Local Authorities Superannuation Fund (the Fund). Obligations for contributions are recognised as an expense in profit or loss when they are due. The Fund has two categories of membership, accumulation and defined benefit, each of which is funded differently.

The Fund's accumulation category, Vision Super Saver, receives both employer and employee contributions on a progressive basis. Employer contributions are normally based on a fixed percentage of employee earnings (nine per cent required under Superannuation Guarantee Legislation). No further liability accrues to the employer as the superannuation benefits accruing to employees are represented by their share of the net assets of the Fund.

Defined Benefit Plan

The Fund's Defined Benefit Plan is a multi-employer sponsored plan. As the Plan's assets and liabilities are pooled and are not allocated by employer, the Actuary is unable to reliably allocate benefit liabilities, assets and costs between employers. As provided under paragraph 32 (b) of AASB 119, Goulburn Broken CMA does not use defined benefit accounting for these contributions.

Goulburn Broken CMA makes employer contributions to the defined benefit category of the Fund at rates determined by the Trustee on the advice of the Fund's Actuary. On the basis of the results of the most recent full actuarial investigation conducted by the Fund's Actuary as at 31 December 2008, Goulburn Broken CMA makes the following contributions:

- 9.25 per cent of members' salaries (same as previous year)
- the difference between resignation and retrenchment benefits paid to any retrenched employees, plus contribution tax (same as previous year).

The fund surplus or deficit (i.e. the difference between fund assets and liabilities) is calculated differently for funding purposes (i.e. calculating required contributions) and for the calculation of accrued benefits as required in AAS 25 to provide the values needed for the AASB 119 disclosure in the Goulburn Broken CMA's financial statements. AAS 25 requires that the present value of the defined benefit liability to be calculated based on benefits that have accrued in respect of membership of the plan to the measurement dates with no allowance for future benefits that may accrue.

Following an actuarial review conducted by the Trustee in late 2010, as at 31 December 2008, a funding shortfall of \$71 million for the Fund was determined. A call to Employers for additional contributions was made for the financial year 30 June 2011 which the Goulburn Broken CMA has paid at Balance Date. A further actuarial review will be undertaken as at 31 December 2011 by mid-2012. Based on the result of this review, a detailed funding plan will be developed and implemented to achieve the target of fully funding by 31 December 2013. Goulburn Broken CMA will be notified of any additional required contributions by late 2012.

Accounting Standard disclosure

The Fund's liability for accrued benefits was determined by the Actuary at 31 December 2008 pursuant to the requirements of Australian Accounting Standard AAS25 as follows:

	31 Dec 2008
	\$000
Net market value of assets	3,630,432
Accrued benefits (per accounting standards)	3,616,422
Difference between assets and accrued benefits	14,010
Vested benefits (minimum sum which must be paid to members when they leave the fund)	3,561,588

The financial assumptions used to calculate the Accrued Benefits for the defined benefit category of the Fund were:

Net investment return	8.5% per annum
Salary inflation	4.25% per annum
Price inflation	2.75% per annum

Contributions

The Goulburn Broken CMA contributes in respect of its employees, to the following principal superannuation schemes: Vision Super, Colonial, and Government Superannuation Office. Contribution details are shown in the following table:

	Type of scheme	Rate %	2011 \$000	2010 \$000
Colonial	Accumulation	9.00	4	7
Government Superannuation Office	Accumulation	Various	69	88
Vision Super	Defined Benefits	9.25	15	14
Vision Super	Accumulation	9.00	165	154
Other funds	Accumulation	9.00	287	212
Total contributions to all funds			540	475

As at balance date, there were contributions payable of \$67,624 (2010: \$52,071)

Notes to the financial statements for the year ended 30 June 2011

Note 13: Contributed equity

	Note	2011 \$000	2010 \$000
Balance at the beginning of the reporting period		4,209	4,209
Contributed capital received		-	-
Balance at the end of the reporting period		4,209	4,209

Note 14: Accumulated funds

Balance at the beginning of the reporting period		-	-
Net result for the year		(2,106)	2,665
Transfer from / (to) reserves		2,106	(2,665)
Balance at the end of the reporting period		-	-

Note 15: Reserve

Committed funds reserve			
Balance at the beginning of the reporting period		11,385	8,720
Net transfers (to) / from accumulated funds		(2,106)	2,665
Balance at the end of the reporting period		9,279	11,385

The purpose of the Committed Funds Reserve is to hold funds allocated for expenditure on works programs which have either not yet commenced or have not been completed at balance date. The Committed Funds Reserve is necessary as grant monies are taken to revenue as soon as the Goulburn Broken CMA has the right to receive those funds and generally there is a time lag between the right to receive the funds and the commencement of the associated works program.

Note 16: Commitments

a Operating lease commitments:

Office accommodation			
Within one year		150	164
One year to five years		41	171
		191	335
Photocopier			
Within one year		4	5
One year to five years		2	6
		6	11
Total			
Within one year		154	169
One year to five years		43	177
Total		197	346

b Finance leases commitments

At balance date that Goulburn Broken CMA had finance lease commitments payable as follows:

Within one year		31	39
One year to five years		32	32
Less future finance charges		(4)	(4)
Total		59	67

Represented by:

Current liability	10	30	37
Non-current liability	10	29	30
Total		59	67

c Capital commitments

At balance date the Goulburn Broken CMA had commitments for capital expenditure payable as follows:

Within one year		44	95
-----------------	--	----	----

Note 16: Commitments (continued)

d Contributions subject to restrictions

The following table reflects major program funding contributions which are subject to restrictions on expenditure profiles which may only be varied with the agreement of the funding body.

Program	Revenue recognised			Outgoings	Unexpended program contributions	Outstanding program commitment	Variance Note (e)
	Funds carried forward 1 July 2010	Funds recognised current year	Total				
	\$000	\$000	\$000	Current year	Funds carried forward 1 July 2011	\$000	\$000
Land and biodiversity	2,612	8,600	11,212	(7,582)	3,630	(1,852)	1,778
Catchment planning and Community engagement	1,199	1,918	3,117	(1,658)	1,459	(38)	1,421
Sustainable irrigation	555	7,984	8,539	(7,459)	1,080	(1,399)	(319)
River health	11,270	6,431	17,701	(10,382)	7,319	(1,323)	5,996
On-Farm Irrigation Efficiency Program	(42)	21,647	21,605	(21,605)	-	(14,636)	(14,636)
Total	15,594	46,580	62,174	(48,686)	13,488	(19,248)	(5,760)

Program	Revenue recognised			Outgoings	Unexpended program contributions	Outstanding program commitment	Variance Note (f)
	Funds carried forward 1 July 2009	Funds received in 2009-10	Total				
	\$000	\$000	\$000	Expended 2009-10	Funds carried forward 1 July 2010	\$000	\$000
Biodiversity	1,499	2,511	4,010	(2,055)	1,955	(1,990)	(35)
Catchment planning and community engagement	949	3,808	4,757	(3,558)	1,199	(1,199)	-
Sustainable dryland landscapes	111	3,235	3,346	(2,689)	657	(1,030)	(373)
Sustainable irrigation	2,266	8,606	10,872	(10,359)	513	(1,901)	(1,388)
River health	8,104	11,745	19,849	(8,579)	11,270	(11,270)	-
Total	12,929	29,905	42,834	(27,240)	15,594	(17,390)	(1,796)

Funds committed as at 30 June are anticipated to be expended as follows:

	2011	2010
	\$000	\$000
Within one year	18,748	16,746
Later than one year but within five years	488	537
Later than five years	12	107
Total committed funds	19,248	17,390

e Contributions subject to restrictions – variances

Variances under the Sustainable Irrigation Program relate mainly to incentive commitments approved in line with a two year approval cycle which if not taken up expire at the end of that period. Approvals given under recurrent programs are limited to a maximum of the current year's funding plus 50% of the subsequent year's funding to ensure that all potential liabilities are adequately funded.

Variances under the On-Farm Irrigation Efficiency Program represent commitments made under the program which are funded from funds already received and held in unearned revenue plus the balance remaining to be paid under the Program to the Goulburn Broken CMA.

Note 17: Contingent assets and liabilities

- a The Goulburn Broken CMA obtained an Australian Tax Office (ATO) Private Ruling on the impacts of GST under the On-Farm Irrigation Efficiency Program to clarify the GST treatment of water transfers which was a requirement under the Program as Water Sales are normally a GST-free transaction. The ruling confirmed that GST was applicable to all payments under the program. Consequently the Goulburn Broken CMA sought \$853,238 from NVIRP in additional GST funding.

NVIRP acceded to this payment request on condition that the Goulburn Broken CMA guarantee that it would refund the GST to NVIRP as well as penalties and interest in the unlikely event that the ATO disallow them an input tax credit for the amount. The Goulburn Broken CMA agreed to compensate NVIRP in the unlikely event that the ATO could disallow them a claim for these input tax credits and impose penalties only in so far as such a decision by the Australian Tax Office is as a direct consequence of the Private Ruling which the Goulburn Broken CMA has received.

- b Subject to Balance Date a landholder has claimed that works undertaken by the Goulburn Broken CMA has potentially impacted the flow of water on the landholder's property. The Goulburn Broken CMA denies the claims and has attended a VCAT directions hearing which has resulted in the parties entering into a mediation process, culminating in an on-site hearing on 2 September 2011.

The quantum of the claim is not considered to be material.

Notes to the financial statements for the year ended 30 June 2011

Note 18: Events occurring after balance sheet date

No matters or circumstances have arisen since the end of the reporting period which significantly affected or may significantly affect the operations of the Goulburn Broken CMA, the results of those operations, or the state of affairs of the Goulburn Broken CMA in future financial years.

Note 19: Responsible persons related disclosures

a Responsible persons

The names of persons who were responsible persons at anytime during the financial year were:

Minister for Environment and Climate Change	Hon. Gavin Jennings MLC	1 July 2010 to 1 December 2010
Minister for Environment and Climate Change	Ryan Smith MP	2 December 2010 to 30 June 2011
Minister for Water	Peter Walsh MP	2 December 2010 to 30 June 2011

There were numerous transactions between the Goulburn Broken CMA and Department of Sustainability and Environment during the year under normal commercial terms and conditions.

Position		First Appointed
Board Member	M Chapman	1 July 2009
Board Member	L Gunter	1 July 2003
Board Member	T Court	1 July 2009
Board Member	E Curtis	1 July 2009
Board Member	R Pell	1 July 2009
Board Member	J Pettigrew	1 July 2003, (Deputy Chair)
Board Member	F Whitford	1 July 2009
Chair	P F Ryan	1 July 2009; Acting Chair 1 April 2010
CEO	C P Norman	15 December 2009
Acting CEO	W Tennant	15-24 November 2010, 4-20 January 2011, 11-19 March 2011

b Remuneration of responsible persons

The number of responsible persons whose remuneration from the Goulburn Broken CMA was within the specified bands are as follows:

Income bands	2011 no.	2010 no.
\$1-\$9,999	-	6
\$10,000-\$19,999	7	2
\$20,000-\$29,999	1	1
\$80,000-\$89,999	-	1
\$90,000-\$99,999	-	1
\$180,000-\$189,999	1	-
Total	9	11

The total remuneration of responsible persons referred to in the above bands was \$310,491 (2010: \$273,279) which includes \$32,624 (2010: \$36,198) paid in superannuation contributions.

The relevant information of the Chief Executive Officer is reported under the Responsible persons.

The relevant Ministers' remuneration is reported separately in the financial statements of the Department of Premier and Cabinet. Other relevant interests are declared in the Register of Members' Interests which each member of the parliament completes.

c Remuneration of executives

The number of Executive Officers, other than responsible persons included under 'Remuneration of responsible persons' above, whose total remuneration exceeded \$100,000 during the reporting period are shown below in their relevant income bands:

Remuneration bands	Total remuneration		Base remuneration	
	2011	2010	2011	2010
\$100,000 - \$109,999	1	-	1	-
\$110,000 - \$119,999	-	1	1	1
\$120,000 - \$129,999	2	2	2	4
\$130,000 - \$139,999	2	2	1	1
\$140,000 - \$149,999	-	1	1	1
\$150,000 - \$159,999	1	1	1	-
\$160,000 - \$169,999	1	-	-	-
Total amount	\$940,229	\$930,584	\$898,934	\$894,234
Total numbers	7	7	7	7

Notes to the financial statements for the year ended 30 June 2011

Note 19: Responsible persons related disclosures (continued)

d Other related party transactions

Loans

There were no loans in existence by the Goulburn Broken CMA to responsible persons or related parties at the date of this report.

Shares

There were no share transactions in existence between the Goulburn Broken CMA and Responsible Persons and their related parties during the financial year.

Other

A grant payment of \$2,698.79 (2010:\$Nil) was paid for a whole farm plan undertaken for property in which Frank Whitford holds an interest. The grant payment was in line with the Goulburn Broken CMA's normal terms and conditions of the grant scheme.

Grant payments were made to Russell Pell and Frank Whitford for \$259,076.00 (2010:\$Nil) and \$201,402.00 (2010:\$Nil) respectively under the Commonwealth funded On-Farm Irrigation Efficiency Program. The grant payments were in line with the Goulburn Broken CMA's normal terms and conditions of the program.

Note 20: Economic dependence

To attain its goals as detailed in its Regional Catchment Strategy, the Goulburn Broken CMA continues to be dependent upon future funding commitments from both the State and Australian Governments.

Note 21: Cash flow information

	Note	2011 \$000	2010 \$000
a Reconciliation of cash			
Cash at the end of the financial year as shown in the cash flow statement is reconciled to the related items in the balance sheet as follows:			
Cash at bank and on hand	5	21,683	19,074
b Reconciliation of cash flow from operations with net result for the year			
Net result for the period		(2,106)	2,665
Non-cash flows in net result			
Depreciation		464	425
Infrastructure Asset write-off	4e	133	-
Amortisation		13	41
Net loss (gain) on disposal of non-current assets		(107)	(103)
Changes in assets and liabilities			
(Increase) / decrease in receivables		(3,004)	4,658
(Increase) / decrease in prepayments		(6)	31
Increase / (decrease) in provisions		145	181
Increase / (decrease) in unearned revenue		5,340	-
Increase / (decrease) in payables		2,217	1,088
Cash flows from operating activities		3,089	8,986

c Property plant and equipment

During the financial year the Goulburn Broken CMA acquired computer equipment with an aggregate fair value of \$34,465 (2010: \$29,383) by means of finance leases. These acquisitions are not reflected in the cash flow statement.

Notes to the financial statements for the year ended 30 June 2011

Note 22: Financial instruments

Interest risk rate exposures

The following table sets out the Goulburn Broken CMA's exposure to interest rate risk, including the contractual repricing dates and the effective weighted average interest rate by maturity periods. Exposures are predominantly from liabilities bearing variable interest rates as the Goulburn Broken CMA intends to hold fixed rate liabilities to maturity.

	Weighted average interest rate %	Floating interest rates \$000	Fixed interest rate maturing			Non-interest bearing \$000
			1 year or less \$000	1 to 2 years \$000	2 to 3 years \$000	
2010-11						
Financial assets						
Cash	4.17	21,681	-	-	-	2
Receivables	n/a	-	-	-	-	4,458
Total financial assets		21,681	-	-	-	4,460
Financial liabilities						
Lease liabilities	4.76	-	30	23	6	-
Payables	n/a	-	-	-	-	7,315
Total financial liabilities	-	-	30	23	6	7,315
Net financial liabilities	-	21,681	(30)	(23)	(6)	(2,855)
2009-10						
Financial assets						
Cash	4.05	19,072	-	-	-	2
Receivables	n/a	-	-	-	-	1,454
Total financial assets	-	19,072	-	-	-	1,456
Financial liabilities						
Lease liabilities	3.87	-	37	21	9	-
Payables	n/a	-	-	-	-	5,100
Total financial liabilities	-	-	37	21	9	5,100
Net financial liabilities	-	19,072	(37)	(21)	(9)	(3,644)

Fair value

The carrying amounts and fair values of interest bearing liabilities at balance date are:

	2011		2010	
	Carrying amount \$000	Fair value \$000	Carrying amount \$000	Fair value \$000
Financial assets				
Cash	21,683	21,683	19,074	19,074
Receivables	4,458	4,458	1,454	1,454
Total financial assets	26,141	26,141	20,528	20,528
Financial liabilities				
Lease liabilities	59	59	67	67
Payables	7,315	7,315	5,100	5,100
Total financial liabilities	7,374	7,374	5,167	5,167

Cash, cash equivalents and non-interest bearing financial assets and financial liabilities are carried at cost which approximates their fair value. The fair value of other financial assets and financial liabilities is based upon market prices, where a market exists or by discounting the expected future cash flows at current interest rates.

Note 23: Authority details

The Goulburn Broken CMA's registered office and principal place of business is: 168 Welsford Street, Shepparton 3630, Victoria.

Note 24: Natural Resource Management Sector Reform

In the 2009-10 Annual Report it was noted there was to be a commitment to restructure Victoria's natural resource management bodies and the associated legislation. Following a change in government, due to the November 2010 State Election, the proposed reforms will not be adopted and the alignment of Natural Resource & Catchment Authorities will not take place.

Appendix 1: Understanding progress and ratings

Details on each investment area within sections of this report justify the ratings provided. Further details, including graphs and reports, are on the Goulburn Broken CMA's website and in relevant sub-strategies of the Regional Catchment Strategy.

This ordering of information is part of implementing the 2004 Goulburn Broken Monitoring, Evaluation and Reporting Strategy. The Australian National Audit Office provided feedback that there is "...much in your (2006-07) annual report that would assist national reporting if applied more generally."

"The lack of an environmental accounting framework is a fundamental weakness of Australian environment policy." – from Accounting for Nature by the Wentworth Group of Concerned Scientists, May 2008.

The Goulburn Broken CMA understands that measuring progress in natural resource management is almost universally difficult, and that the quality of data systems used to inform whole-of-Catchment-scale decisions is often poor. Nevertheless, decisions have to be made and the Goulburn Broken CMA is at the forefront of communicating progress.

"...you take a comprehensive approach using quantitative and qualitative data and measure performance over time. Your (annual) report is also well presented and easy to read." – Australian National Audit Office letter to Goulburn Broken CMA, March 2008.

Ratings of annual performance and long-term progress help to focus investment decision-makers such as the Board and government funding bodies. The use of these ratings for guiding decisions needs to be tempered by an understanding of their degree of objectivity.

Three levels of analysis

Decision makers need to know annually whether funded actions were achieved.

It is also critical for decision makers to compare progress in implementing actions listed in strategies with the change in condition of the issue of interest. This comparison can alert us to under or over-achievement and force us to consider questions such as:

- Was the original strategy appropriate?
- Have circumstances (such as new knowledge or different weather patterns) changed sufficiently to warrant a revised strategy?
- Does the investment mix need to be modified?

Data is organised to inform three critical and connected levels of analysis, as shown in the table below.

Evidence for three levels of analysis

Analysis level	Analysis terminology	Typical question used to assist analysis	Examples of evidence to inform analysis
1	Annual performance	1 How did we go this year against what we said we would do?	Outputs achieved and funds spent against targets set in the Corporate Plan
2	Long-term strategy implementation progress	2 How have we gone against what we said we would do when we wrote the (various) strategies?	Outputs and assumptions of their impact listed in strategies
3	Catchment condition change	3 What 'shape' is the issue we are managing in now?	Resource condition; trends; tipping points; indicators of resilience, adaptation and transformation responses

Annual performance

Annual performance is rated by measuring the outputs achieved against targets for the year. Targets are determined by the funds available and usually vary from those identified or implied in the relevant long-term strategy. This is because we mostly do not know what funds are available beyond one year and what funds are anticipated to be available at the time the strategy was written.

The Goulburn Broken CMA negotiates investment amounts and output targets to be delivered each year with Victorian and Australian Governments. Outputs are often common to several investment areas and targets and achievements are aggregated from projects within those areas.

There is usually a high certainty of the rating for annual performance within a single investment area: funding is known, outputs and other indicators are well documented, and accounting mechanisms are sound.

Annual targets and achievements data in this report do not include outputs delivered beyond Goulburn Broken CMA's direct control, especially by those landholders who voluntarily pay for and undertake onground works. However, data on these external outputs is also critical to inform long-term decisions and is captured by other means.

Outputs shown in this report are useful for decision making by government investors, Goulburn Broken CMA senior managers and the Goulburn Broken CMA Board. Monitoring finer-scaled outputs and inputs are more appropriate for individual project and sub-project decision making and are not shown in this report.

For detailed outputs for each implementation committee area, see the 'Outputs – detailed list of achievements' table on page 116. Detailed outputs relating to each investment area are listed in sections devoted to each investment area throughout this report.

Long-term progress

Long-term progress ratings are needed for two separate areas of focus for decision-making:

- outputs achieved against what were intended to be achieved since the relevant strategy's inception (long-term strategy implementation progress)
- condition of the issue to be managed, such as water quality, native vegetation or community capacity.

There are often several individual strategic components to rate when determining an overall long-term progress rating within a single investment area. These individual ratings have varied data quality and this affects the certainty of the overall rating. Strategies for different investment areas vary in formality and comprehensiveness, which is appropriate, so our certainty of understanding progress varies considerably.

Where outputs and long-term strategies are well defined and where they are accompanied by solid data management systems, such as for 'Investment area 1a - Shepparton Irrigation Region salinity', then the certainty of our long-term progress ratings increases.

Complete implementation of a strategy does not necessarily translate to desired condition change, because of external factors and perhaps inaccurate assumptions used at the time the strategy was written, especially assumptions related to funding levels, social and political circumstances and the weather.

What does Catchment condition mean?

Measuring the condition of the Catchment has historically focused on discrete themes, including biophysical investment areas such as salinity, water quality, river health and biodiversity, and non-biophysical investment areas such as community capacity. 'Headline themes' have been mandated as the way that 'management summary' and 'Catchment condition' reports will be structured in Victoria from 2009-10 (see page 47).

The National Framework for Natural Resource Management Standards and Targets (2002, under review) listed ten similar types of theme as resource condition 'matters for target'. It also recommended indicator headings and indicators of progress. Resource condition indicator examples are depth to groundwater, soil acidity, total phosphorus levels in water and the extent of native vegetation present by interim biogeographical regionalisation of Australia sub-regions.

'Resource' can be interpreted from this National framework as referring to biophysical assets such as rivers, as well as to, perhaps erroneously, threats such as salinity. Resource condition can therefore be interpreted as being the biophysical state of the biophysical theme (or matter for target).

Resource condition indicators have been very useful in ordering information for decision makers whose focus is within particular investment areas. However, these indicators only provide part of the picture and there has been wide variability in their interpretation and use.

We need more information on the investment areas in an integrated context to make better decisions. This means we need information on all of the elements that impact on particular investment areas in order to rate the condition of the Catchment for that investment area.

This Annual Report promotes a broadening of focus from environmental elements only to social and economic elements also within each investment area, including the relationships between all elements. Together, these elements form a complex, evolving, integrated socioecological systemⁱ in which humans are a part of nature. Ratings of Catchment condition for an investment area are therefore ratings of the socio-ecological system's condition related to that investment area.

The quality and availability of indicator data for the environmental (or resource condition) component varies considerably, and we are in the very early stages of formally documenting relevant social and economic indicator data. Despite the uncertainties that this presents, it is far more informative for decision making to present rolled up socioecological system ratings for Catchment condition rather than ratings based on resource condition indicators alone. Progress within investment areas is usually rated by considering more than one element. For example, threatened species and native vegetation are two component elements within the biodiversity investment area.

Resource condition indicators are usually not a major consideration in rating progress within investment areas under 'The Business' because these investment areas merely have supporting functions.

Investment areas and integration

The Goulburn Broken CMA focuses on 13 highly connected investment areas under 'The Environment' and 'The Business'. These investment areas relate closely to the different investment areas within government.

Service delivery is integrated across these investment areas to varying degrees and occurs at all levels. Integration is obvious at the scale of whole farm plans and is evident in the information in the 'Collaborations and communities' section. Integration is not so obvious at the strategic level because strategic approaches are usually required to focus on discrete investment areas framed by government investors. The Shepparton Irrigation Region Catchment Implementation Strategy and the Dryland Landscape Strategy provide cross investment area perspectives and help to achieve strategic integration. Planning for large projects is increasingly integrated across the investment areas. Integration can add cost and complexity. The benefits of integration need to outweigh these costs.

Resilience, adaptability and transformability

Resilience thinkingⁱ helps to expand our thinking to the whole of system. This approach has evolved out of our sustainability and ecosystem services thinking.

Characteristics of desired systems include:

- resilience: the capacity to withstand shocks and rebuild without collapsing into a different system
- adaptability: the capacity of participants to influence resilience
- transformability: the capacity to create a fundamentally new system if necessary.

Together, these characteristics can be considered as part of the resilience package.

Thinking about resilience ensures that fundamental questions are at the forefront of our minds, such as:

- Are our systems sufficiently resilient to withstand a shock?
- Are our systems close to a threshold (or tipping point into a completely different regime)?
 - is it better to accept that our systems are transforming into a different regime and accept that we should just focus on managing the change?
 - what interventions can or should be made to build resilience?

Resilience, adaptability and transformability are important components of investment areas under both 'The Environment' and 'The Business'.

ⁱ The above discussions on socio-ecological systems and resilience have drawn heavily from 'Resilience, Adaptability and Transformability in the Goulburn-Broken Catchment' (2009) by Walker, Abel, Anderies and Ryan; the Resilience Alliance website www.resalliance.org and from 'Resilience Management – A Guide for Irrigated Regions, Communities and Enterprises' (2007) by Wolfenden, Evans, Essaw, Johnson, Sanderson, Starkey and Wilkinson.

Appendix 2: The Environment – evidence of annual performance and long-term progress

This appendix provides evidence for the ratings of progress given in the scoreboards on pages 12, 13 and 16 that relate to 'The Environment'. Evidence for ratings related to 'The Business' are provided in sections on 'Collaborations and communities' (page 17), 'Planning and responding' (page 26), 'Environmental footprint' (page 31), 'Human resources' (page 33), and 'Governance' (page 39).

Investment area 1 - Sustainable Irrigation

Investment area 1a – Shepparton Irrigation Region (SIR) salinity: watertables and River Murray salinity

Compiled by Carl Walters, Peter Howard, Terry Batey, James Burditt, Sam Green, Megan McFarlane and Rod McLennan. See www.gbcma.vic.gov.au for more details.

Annual performance, long-term strategy implementation progress and Catchment condition change

Decision focus ⁱ	Examples of evidence used to inform decisions	1990 ⁱⁱ	Certainty of rating	2011	Certainty of rating	Trend
2010-11 performance	Outputs (against targets set as a result of funds received)	n.a.	n.a.	On target	High	n.a.
Long-term strategy implementation progress	Outputs (scheduled between 1990 and 2011)	n.a.	n.a.	On target	High	● ⁱⁱⁱ
Catchment condition ^{iv}	Watertable salinity and depths Salt disposed to River Murray Salinity of environmental features Management systems	Poor	Low	Good	Medium	●

i See Appendix 1 for notes on the analytical framework (page 116), including an explanation of the decision focus and ratings.

ii Ratings for 1990 have been determined using our understanding in 2011 of the situation in 1990.

iii Assumed to parallel government funding trend.

iv The reference point is taken to be the time just prior to European settlement, when the Catchment is considered to have been in excellent condition.

Background

Salinity has been the biggest natural resource challenge in the SIR over the last two decades.

The SIR community's 2020 resource condition targets are to:

- keep groundwater below two metres within the SIR (500,000 hectares) by improved irrigation management on farms, improved surface water management within drainage catchments and consistently pumping groundwater with appropriate reuse over 216,000 hectares
- keep increases to salinity levels of the River Murray at Morgan (in South Australia) from the implementation of the Shepparton Irrigation Region Catchment Implementation Strategy at or below 8.9 EC (electrical conductivity unit).

Managing salt within the SIR landscape and discharges of salt to waterways are high priorities in contributing to objectives of the Murray-Darling Basin Authority's Basin Salinity Management Strategy 2001-2015. Actions to manage salinity have significant benefits for agriculture, water quality, water supply security and biodiversity.

Salinity program areas are overseen by Shepparton Irrigation Region Implementation Committee (SIRIC) and each program is covered by a working group: Farm and Environment, Groundwater and Salinity Management, Surface Water Management, and Farm Water.

Government investment, \$000

2008-09	2009-10	2010-11	2011-12 ⁱ	Trend
11,720	8,607	29,631	45,786	●

i Forecast based on advice at August 2011.

Major strategic references

- Shepparton Irrigation Region Land and Water Salinity Management Plan 1989 (and reviews 1995, 2000, 2003; 2007 being documented), now called the Shepparton Irrigation Region Catchment Implementation Strategy

These working groups comprise agency staff and community members, including representatives from G-MW, Water Services Committees, the Victorian Farmers Federation, local government, industry and environment groups.

Different farm sectors have different salinity management needs. Reduced water allocations in recent years resulted in some farm sectors declining. Regional tertiary industries are also adapting in response to changing supplies of primary produce and volatile market conditions. Farms are also generally getting bigger as many farmers leave the industry. These changes affect the types and amount of benefit that investment in salinity management achieves.

Climate variability and irrigation salinity

Climate variability and responses to it may significantly affect land salinisation in the SIR and River Murray salinity downstream of the SIR.

The wetter climate in 2010-11 caused watertables to rise significantly within the SIR. Salinity risk maps show that the areas that may potentially re-emerge as being under threat from salinity are predominantly within the proposed modernised irrigation footprint.

Water ownership also continues to change, with an increasing proportion becoming part of the Environmental Water Reserve (see pages 90 and 92) under various State and Commonwealth programs.

Farmers, industry and governments have accelerated on-farm irrigation efficiency programs in response to these changes. The Farm Water Program (see case study on page 25), funded by the Australian and Victorian Governments, invests in on-farm works that increase regional productivity while gaining water for the Environmental Water Reserve. These works are integrated with the irrigation system upgrade that is being undertaken as part of the Northern Victoria Irrigation Renewal Project (NVIRP).

Environmental flows need to be carefully managed because they can have negative and positive effects on salinity. For example, freshwater flushes from environmental flows can have a positive effect of diluting saline River Murray water, while environmental flows that target sites on the floodplain (beyond the stream banks) can have the adverse effect of remobilising salt.

The improved efficiency of the irrigation industry and reduced allocations of irrigation water might increase River Murray salinity because of reduced diluting outfall flows from channels and properties and in lower river flows during summer. This increase in salinity could be balanced by the timing of environmental water deliveries. The Goulburn Broken CMA is working closely with North Central CMA, DSE and NVIRP to understand and assess the effect of irrigation modernisation activities on salt loads.

Investigations found that winter salt disposal from private groundwater pumps is unlikely to provide significant salinity control as there is too much salt still stored in the soil profile. It was agreed that credits gained by removing this action from the Murray-Darling Basin Authority's Salinity Accountable Action Register would be better used elsewhere in the Victorian salinity program. A request has been sent to the Murray-

Darling Basin Authority to remove this action from the Salt Register. This will reduce the impact from the implementation of the SIR Catchment Implementation Strategy and potentially provide salinity (EC) credits for Victoria to use elsewhere.

Following significant spring rains and frequent storms through summer, shallow watertables rose by an average of 2.5 metres across the SIR. The significant rains and resulting increased River Murray flows created an opportunity for operating public salinity control pumps (20 pumps were operating at the time of writing this report, July 2011). Public salinity control pumps have not operated since 1997. The rapid rise in shallow watertables prompted monitoring and risk assessment of high value environmental features such as the Millewa Nature Conservation Reserve.

2010-2011 performance

Implementation of the Shepparton Irrigation Region Catchment Implementation Strategy (SIRCIS) continues to progress despite the region enduring widely varying climatic conditions and changing funding priorities. Reduced commodity prices and an inability to meet community demand for surface drainage and therefore salinity control have impacted on the region.

The emphasis again was to link implementation of the SIRCIS with various modernisation programs, especially the NVIRP and the Farm Water Program, to optimise opportunities presented by changes to delivery systems.

The whole farm planning program has aligned with the remodelled regional delivery system, requiring farm irrigation system upgrades so that full benefits are captured.

The Farm Water Program started to roll out in 2010-11. NVIRP approved \$16.4 million in September for 75 projects and the Australian Government approved \$21.1 million for 78 projects in November. As at 30 June 2011, 149 projects had been funded: 73 projects by NVIRP and 76 projects by the Australian Government. Funding was made available for 175 of 179 project applications (26 applications were withdrawn).

Refer also to the 'Shepparton Irrigation Region Implementation Committee' section (page 23) for further achievements, especially those related to integration of complementary issues and community involvement.

Works and extension

Actions 2008-09, 2009-10 and 2010-11

Action ⁱ		From funds received through Corporate Plan ⁱⁱ				% achieved
		Achieved		Target ⁱⁱⁱ		
		2008-09	2009-10	2010-11		
Surface water action						
Land forming/laser grading ⁱⁱⁱ	ha	20,476	13,745	19,546	10,080	194
Drain – primary built ^{iv}	km	5.5	6	1.1	2.0	55
Drain – community built	km	5.3	4	1.4	1.5	93
Farm reuse systems installed ^v	no.	66	76	7	0	note ^v
Drain – additional water diverted from regional drains ^{vi}	ML	0	0	0	0	-
Irrigation systems – improved ^{vii}	ha	21,083	14,217	20,050	10,080	199
Sub-surface water action						
New groundwater pumps – public installed	no.	1	0	0	0	-
New groundwater pumps – private installed	no.	11	9	0	4	0
Increased volume of water able to be pumped	ML	1,794	1,827	0	400	0
Planning for works action						
Whole farm plans	no.	247	212	256	140	183

i Many actions primarily aimed at achieving salinity targets contribute to other targets, such as those for water quality and biodiversity. Investment shown is for those funds dedicated primarily to achieving salinity outcomes.

ii Corporate Plan targets are adjusted as funding is confirmed.

iii This area is established from the area that has been put under whole farm plans for the year including modernised whole farm plans and achievements from the Farm Water Program of 297 hectares.

iv Approximately 5 kilometres of new drains are under construction with only 1 kilometre formally completed.

v Reuse dams allow for the collection and re-irrigation of high nutrient run-off, reducing the water and nutrient loads leaving the farm. Numbers decreased in 2010-11 as incentives are no longer offered and only delivered through the Farm Water Program.

vi High flow diversion. None completed because of no demand and previous dry conditions.

vii Improved systems include laser grading, automatic irrigation and micro-irrigation. Figure includes improved irrigation activities as a result of the Farm Water Program.

Groundwater and Salinity Management Program

No new or upgraded shallow private groundwater pumps were completed, although three new pumps are in progress. Therefore, there was no additional groundwater for irrigation or area of irrigated land protected from high watertables.

Groundwater investigations were completed at six sites. Two sites were suitable for private pumping. Four investigations are in progress and there are 23 irrigators on the newly prioritised waiting list.

The Millewa Nature Conservation Reserve showed a significant response to rain, with local shallow groundwater levels exceeding high salinity risk trigger levels, triggering a trial pumping of groundwater (as listed in the Groundwater and Salinity Management Plan). This took precedence over an investigation into the groundwater threat to the environment from irrigation at Kanyapella Basin, which was deferred.

Surface Water Management Program

No primary surface water management schemes were designed because most primary drains under the current strategy have been completed. The only detailed design work not completed is Stage 4 of Murray Valley Drain 11.

One kilometre of primary drains was built, protecting 104 hectares of irrigated lands. Works have also progressed in the Stanhope Depression Drain Stage 2, Mosquito Drain 40 and Muckatah Main Drain Stage 4, and Deakin Drain 16, Extension Stage 1. Significant progress was also made on several outstanding land acquisition matters.

The 1.35 kilometre Mosquito 8/25P community surface water management system was constructed in May and June 2011, protecting 145 hectares of irrigated farmland. Progress toward construction of more systems is being made by working with eight community groups under the Community Surface Water Management Program.

The Community Surface Water Management Program Landholder Information Booklet, updated in August 2010, was circulated to landholders in the Muckatah catchment as part of the Muckatah Depression Scoping Study of November 2010.

The wet spring and summer forced earthworks in the Kanyapella Basin to stop until it dried out and allow earthmoving equipment and other vehicles to start.

Draft reports were prepared on potential infrastructure options to supply environmental features with environmental water, including Wallenjoie Swamp, Cornella Creek, Daunts Bend and Cemetery Bend. Several other wetlands were inspected, with reports in various stages of completion (Garner Swamp, Gemmill Swamp, Pullar Swamp and Alexanders Swamp). Heavy summer rainfall meant that environmental water did not need to be delivered to wetlands.

Farm and Environment Program

Outputs delivered in the SIR are shown in Appendix 3 (page 116). Figures in this section do NOT include the part of the Farm Water Program that is outside of the Shepparton Irrigation Region.

Whole farm plans on 256 properties covering 21,388 hectares were completed, including 69 'revised modernised' plans, bringing the total number of whole farm plans under this incentive to 4,090 covering 283,636 hectares or 89.5 per cent of the irrigated area.

Onground works funded through the Farm Water Program began in the last quarter of 2010-11, including reuse systems, improved irrigation scheduling and farm channels and pipes and risers to achieve fast flow irrigation. Seven reuse systems draining 196 hectares were installed, bringing the total number of reuse systems from all fund sources since the beginning of the SIR incentives to 632, serving 40,384 hectares.

No automatic irrigation systems were installed, but many are underway through the Farm Water Program. The total number of automatic irrigation systems constructed remains at 149, serving 8,710 hectares.

Twenty-five landholders were supported to undertake environmental and tree growing projects. They erected 18 kilometres of fencing, helping to protect 60 hectares of remnant vegetation, and enhanced 21 hectares.

A total of 2.5 kilometres of fencing was erected to protect 440 hectares of remnant vegetation in Kanyapella Basin. Five hectares of open country was revegetated with the support of the Kanyapella-Koyuga Landcare Group. A four-week fox control program was conducted throughout the Basin and the fox population was significantly reduced.

Environmental site assessments completed across the Goulburn Murray Irrigation District for NVIRP comprised:

- 1,245 assessments on meters and 133 on access to the meter sites
- 139 assessments on channel regulators and 16 on access to the regulators
- 177 connections' business cases; including 600 individual assessments (channel decommissioning, culverts, road crossings, subways, meters, regulators)
- 6,079 field work hours.

Maps of incentives in the Shepparton Irrigation Region to June 2011 at www.gbcma.vic.gov.au shows where drainage reuse system grants, whole farm plans and automated irrigation grants have been completed. See also the case study on the Farm Water Program on page 25.

Highlights of the 2010-11 River health and Wetland base program included 41 hectares of revegetation, 5.0 kilometres of Lower Broken Creek (34 hectares direct seeding and 7.6 hectares tube stock planting) and 5.7 hectares of willow control on 19 kilometres of the lower Broken Creek.

The SIR component of the Goulburn River Large Scale River Restoration Project included 32 hectares of woody weed control on the Goulburn River frontage near Toolamba and the reinstatement of 150 cubic metres of large woody debris (snags) in the Goulburn River below Toolamba.

Collaborations and communities

A Strategic Environmental Projects technical working group continued to oversee delivery of the Groundwater and Salinity Management Program.

SIRIC worked closely with NVIRP and other modernisation activities to ensure that water saving projects are consistent with and complementary to implementation of the SIRCIS. SIRIC's Executive Officer represented Goulburn Broken CMA on various NVIRP Committees, including the Technical Advisory Group, the Environmental Technical Advisory Committee, and the Salinity Impact Technical Advisory Committee.

SIRIC continued to engage the Greater Shepparton City Council, Shire of Campaspe, and Moira Shire Council through meetings with each council, council briefings and Municipal Catchment Coordinator Steering Committee meetings.

SIRIC allocated \$19,638 of grants to schools, Landcare and community groups to undertake community education and awareness projects that increase awareness and understanding of salinity, biodiversity, water quality, pest plants and animals and climate change.

The Farm Water Program Consortium includes members from a range of partners including: North Central and North East CMAs, Northern Victorian Irrigators Inc., NVIRP, DSE, DPI, G-MW, Murray Dairy and Dairy Australia.

See also the 'Shepparton Irrigation Region Implementation Committee' section on page 23.

Regular high level meetings have been arranged between the leadership of regional stakeholders to ensure common understanding of regional issues.

Planning and responding (includes research and development)

The 2007 SIRCIS review is being documented.

Protecting environmental assets in the SIR and adapting to the future drier climate with variable seasonal conditions continues to be the focus of the Groundwater and Salt Management Program. The Water Balance and Salt Mobilisation project progressed significantly, with a number of workshops and steering committee meetings held to develop understanding and gain widespread support for the project's approach. The 'Assessment of selected chemical elements and compounds in shallow SIR Groundwater Project', was completed.

Cost-sharing partnerships with DSE, NVIRP and G-MW for research and development projects continue to evolve, helping to compensate for declining federal funds.

A monitoring review was completed with North Central CMA and NVIRP.

The intensive groundwater and drain monitoring program continued and the annual watertable depth and nutrient discharge reports were published.

The review of Water Quality and Groundwater monitoring across the Goulburn Broken area has been completed to clarify monitoring sites and to identify users of the information recorded. Stage 2 will be to rationalised if possible.

The 2009-10 annual report to the Murray-Darling Basin Authority's Basin Salinity Management Plan was completed.

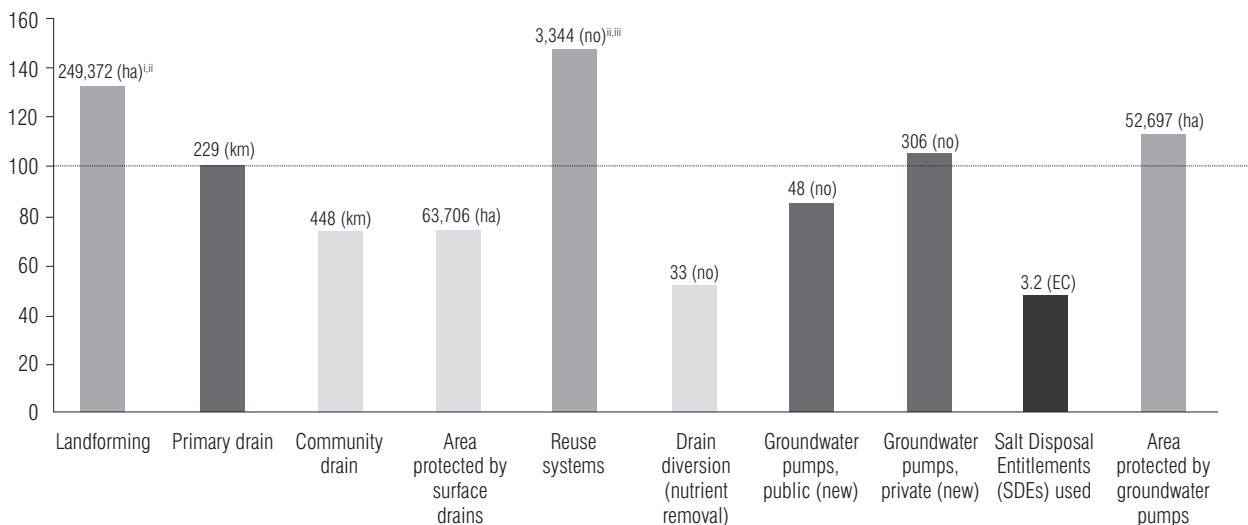
The revised Irrigation Drainage Memorandum of Understanding (IDMOU) was signed by DPI and the original signatories (G-MW, Goulburn Broken CMA, North Central CMA, DSE and the Environment Protection Authority).

The 2009-10 report on nutrient loads from SIR surface drains was completed.

Completion of the Catchment and Operation Plan for the SIR was deferred until 2011-12, pending the revised IDMOU.

Long-term strategy implementation progress

Shepparton Irrigation Region Catchment Implementation Strategy's 1990-2011 target achieved, %
(Achievements listed on top of each bar)



i Landforming: includes 297 hectares delivered under Farm Water Program in 2011.

ii 2010-11 figures for landforming and reuse systems were incorrect in the 2009-10 annual report: correct (and incorrect) figures were 229,826 (229,132) and 3,337 (3,325) respectively.

iii Includes 2,712 systems 1990-91 (pre-scheme).

Farm works were accelerated by the Commonwealth On-Farm Irrigation Efficiency Program and NVIRP funding to the Farm Water Program, which has increased the focus on works, generating improved farm water management and savings. Key works include reuse systems, fast flow irrigation, pipe and riser irrigation and pressurised irrigation scheduling systems.

Regional infrastructure (public drains and public groundwater pumps) is behind schedule due to declining government investment.

Works targets set in 1990 and reviewed in 1995, 2001 and 2006 are again due for review.

Tasks to establish or reinforce management and community engagement systems (stakeholder forums, partnerships, technical input, review processes etc) have been reviewed.

The SIR community's Foodbowl Modernisation project, which began implementation in 2008 through NVIRP, is also helping to reduce salinity threats (it is primarily aimed at achieving water savings for the benefit of the environment, irrigators and Melbourne's water supply).

The reporting of progress against salt impact targets is carried out annually. The salt impact annual report to the Murray-Darling Basing Authority was once again well received.

Catchment condition

Although risks of land salinisation, waterlogging and saline inflows into the River Murray in 2010-2011 have increased due to high spring and summer rainfall, these risks have generally declined since 1990 because of:

- government supported salinity management works, particularly in the early 1990s, including surface water management projects (that result in less water going through to the watertable) and groundwater pumping projects (that have the effect of lowering the watertable)
- complementary government-supported water quality and water savings works that have water-use efficiency and often, therefore, salinity benefits; for example, irrigation delivery infrastructure through the Foodbowl Modernisation project from 2008 means significantly less water is available to go through to the watertable
- the impact of environmental flows and water trade downstream from the Goulburn Broken Catchment (this reduces the SIR's impact on the River Murray's salinity).

New and emerging issues can be accommodated by the regional institutional mechanisms, such as stakeholder involvement forums and monitoring, evaluation and reporting processes that are in place and by the very strong relationships that exist.

Changes since 1990 mean that the SIR is better equipped to withstand a return to a run of wet years in terms of salinity.

What's next?

The operational priority is to continue integrating farm and catchment programs with irrigation modernisation and the Farm Water Program, which requires working with partner agencies, so that salinity management objectives are also met as works proceed.

Implementation targets thought appropriate in 1990 are being reviewed as government support for salinity management continues to decline and the climate shifts. The review considers how resilient the SIR has become in terms of salinity: in the event there was a run of wet years, the capacity of the infrastructure and management systems developed may restrict levels of waterlogging, land salinisation and saline inflows into the River Murray to desirable levels. The review also takes into account the rapidly changing socio-economic context of landholders and flow-on effects to the regional community. The review of the Regional Catchment Strategy in 2011-2012 will inform implementation targets.

The three-year Shepparton Irrigation Region Salt and Water Balance Project is assessing how a changing climate and reducing or changing irrigation allocations and water availability impacts on the shallow watertable. The project includes the connection between irrigation, high watertables and salinity levels and implications for strategies.

The draft Murray-Darling Basin Plan is expected to be released in late 2011. The impact of the Plan on the irrigation industry, including potential changes to areas under intensive irrigation as a result of reduced available volumes of water, will need to be assessed. The June 2010 parliamentary inquiry report, 'Of drought and flooding rains', lists 20 recommendations for better communicating the impacts of Murray-Darling Basin reforms and for governance, including establishment of a new Commonwealth agency based on the Water for Rivers model.

Large sales of irrigation water and reduced allocations have already resulted in many intensively irrigated properties becoming part of the 'new dryland'. A project to help landholders and policy makers decide the future of these properties has begun: some properties might be better used for purposes other than irrigated agriculture.

Investment area 2 – River and wetland health and floodplain management

Compiled by: Simon Casanelia, Wayne Tennant, Geoff Earl, Meegan Judd, Mark Turner, Keith Ward and Rod McLennan

Background

Four highly connected investment areas are reported in this section:

- 2a Environmental flows
- 2b Riparian and instream habitat and channel form
- 2c Water quality (nutrients) in rivers and streams
- 2d Floodplain management.

River health and floodplain management, in Victoria, is the responsibility of catchment management authorities and Melbourne Water, as described in Part 10 of the *Water Act 1989*.

About fifteen per cent of approximately 800 statutory applications received annually by the Goulburn Broken CMA relate directly to protecting waterway health. This is carried out under Goulburn Broken CMA Bylaw No. 2 and ensures that works and activities do not diminish waterway values. (See the 'Floodplain management' section on page 99 for further information on statutory planning activities).

The Goulburn Broken Regional River Health Strategy 2005-2015 (GB RRHS) is the first attempt to combine all elements of river management under one umbrella. Actions focused on improving the condition of rivers, floodplains and wetlands will help achieve the Healthy Rivers, Healthy Communities vision set in 2003, as stated in the regionally and Ministerially endorsed GB RRHS:

"Healthy rivers, streams, wetlands, floodplains and adjacent land that support a vibrant range and abundance of natural environments, provide water for human use, sustain our native flora and fauna and provides for our social, economic and cultural values."

In 2009-10 the Goulburn Broken CMA developed an addendum to the GB RRHS to guide investment over the following three years. This addendum, based on guidelines developed by DSE, reviewed achievements since 2004, considering programs, policies and environmental factors that affect program delivery and the strategy. The vision developed for the 2003 RRHS was retained in this addendum.

Rivers, streams and wetlands are highly valued for many environmental, social and economic reasons. They underpin our livelihoods (providing water for agriculture, commercial and domestic uses), contain significant flora and fauna habitat, have high recreational and aesthetic values, and are often central to the culture of Indigenous Australians. The Goulburn Broken Catchment's water provides major benefits for Victoria and beyond, generating 11 per cent of the Murray-Darling Basin's water despite covering only two per cent of its area.

Resource condition targets for river condition listed in the GB RRHS act as reference points for measuring progress towards achieving the above vision. These include:

- 350 kilometres of river maintained in excellent or good condition
- ecological flow objectives met in high value reaches
- nutrient loads reduced or improved
- riparian condition protected or enhanced along 550 kilometres of river
- instream habitat enhanced or reinstated along 140 kilometres of river.

Government investmentⁱ, \$000

2008-09	2009-10 ⁱⁱ	2010-11 ⁱⁱⁱ	2011-12 ^{iv}	Trend
13,630	12,398	5,599	4,059	●

- i Includes all three investment areas under River and wetland health.
- ii Includes \$3.5 million for fire recovery for 2009-10 activities.
- iii From 2010-11, investment shown is for core funding. Prior to 2010-11, figures also included investment from short-term, opportunistic sources such as the Drought Employment Program and proceeds from the sale of part of the Water Quality Reserve.
- iv Forecast based on funding advice at August 2011.

Major strategic references

Common to all investment areas:

- Goulburn Broken Regional River Health Strategy 2005, Addendum 2010
- Victorian River Health Strategy 2002 (VRHS)

Relevant to specific investment areas:

Environmental flows and water supply

- Victorian Government White Paper: Our Water Our Future (2004)
- www.thelivingmurray.gov.au
- The Northern Region Sustainable Water Strategy
- The Barmah-Milewa Environmental Management Plan (MDBA 2005)

Riparian and instream habitat

- Victorian Government White Paper: Our Water Our Future (2004)
- Wetlands Strategy for the Goulburn Broken Catchment (Draft August 2003)
- Murray Darling Native Fish Management Strategy
- Threatened Species Recovery Plans

Water quality (nutrients) in rivers and streams

- Goulburn Broken Water Quality Strategy 1996-2016
- Review of Goulburn Broken Water Quality Strategy 1996-2016 (Brian Garrett and Associates 2001)
- Goulburn Broken Water Quality Strategy 1996-2016 review (2008)

Although no target was set for wetlands in the GB RRHS or its addendum, it is a priority for the second generation of the GB RRHS.

River regulation, pollution, vegetation removal and other catchment disturbances have impacted on instream, riparian, wetland and floodplain health.

The catastrophic fires of 2006 and 2009 in the upper catchments continue to have significant impacts on natural resources, especially native vegetation and water quality. The River Health Program continues to respond through real time water quality monitoring, controlling sediment, protecting frontages, threatened species recovery, controlling pest plants and animals, and, through a new initiative, employing staff to undertake environmental works and provide community support.

Many rivers and associated floodplains and wetlands flooded as a result of intense rainfall in late 2010 and early 2011. These unseasonal events, which followed a prolonged period of drought and large scale wildfire, created a range of social and environmental issues. The floodwater led to low dissolved oxygen levels, blackwater and fish deaths in a number of rivers throughout the Murray-Darling Basin, including the lower Goulburn River and the Broken Creek. The challenge for the Goulburn Broken CMA and the community is to make our river systems more resilient to extreme climatic conditions and external human pressures.

Climate change and river and wetland health

The River and Wetland Health Program's adaptive management framework includes increasing understanding of the condition of systems through monitoring and research. Understanding how systems respond to drought and intervention (such as delivery of environmental water) is critical to improving management.

The Goulburn Broken CMA supported the regional zonation project in 2010, furthering work originally commissioned by DSE, to help identify high-value river reaches across Victoria. Data generated by the project will be incorporated into the review of the Regional River Health Strategy and may assist locally in identifying important refuge for fish in a drying climate and areas suitable for reintroducing native fish species.

A further State-commissioned project being managed by the Goulburn Broken CMA is looking at the impact of climate change on aquatic ecosystem and river values, primarily focusing on water quality.

Environmental water delivery plans, event based intervention and other programs are developed with partner agencies through forums such as the River and Water Contingency Planning Group and the Regional Water Quality Forum.

Environmental flows

Environmental water, the environment's legal share of water called the Environmental Water Reserve, is a key element in protecting aquatic ecosystems and includes two types of water:

- water that is held in storage and actively managed to meet specific environmental needs (environmental entitlements)
- minimum river flows and unregulated flows made available as a result of rules on consumptive use (conditions on bulk entitlements and water licences, and caps on water use).

The Victorian Environmental Water Holder (VEWH) is responsible for holding and managing Victoria's environmental water entitlements. Catchment management authorities are responsible for determining the environmental water requirements of wetlands and streams, developing and submitting seasonal watering proposals to the VEWH for consideration and managing the delivery of environmental water with the cooperation and support of partner agencies. This complements the Goulburn Broken CMA's roles as the caretaker of river health and as the provider of waterway, regional drainage and floodplain management services.

Partner agencies are responsible for allocating water resources, regulating river flow, delivering water, regulating water use, and servicing wastewater disposal. Catchment management authorities work with the holders of bulk entitlements and water licences to manage other environmental water.

Since the mid-1990s, State and Commonwealth Governments have progressively improved water management, including provision of water for environmental flows. Recent years of drought add to the urgency of this work.

In 2002, the Murray-Darling Basin Ministerial Council established The Living Murray Initiative, which aims to achieve a healthy working River Murray system. In the Goulburn Broken Catchment, this involves the Barmah Forest and the River Murray channel.

In the Victorian Government's 2009 Northern Victorian Sustainable Water Strategy, targets for environmental outcomes in the Goulburn River, Broken River and Broken Creek were set, along with associated

water recovery targets. It contained a range of water management policy initiatives, such as carryover and crediting of return flows, to increase the flexibility and efficiency of environmental and consumptive water use.

The GB RRHS plans to improve river health by determining environmental flow needs and managing flow regimes, particularly in the Goulburn River, Broken River, and Broken Creek.

Wetlands are critical to the functioning of the riverine ecosystem. The Catchment contains thousands of wetlands, especially on the floodplains, which have undergone significant change since settlement and the Regional Catchment Strategy recognises the need to improve them. The recent wet conditions have supplied much needed high and overbank flows to many rivers across the Catchment, connecting floodplains and wetlands to the river channel for the first time in many years. This stimulated significant bird breeding and the growth and germination of a diverse range of aquatic plants.

Targeting environmental flows and using the flexibility in the water supply system to deliver environmental benefits are key strategies.

Riparian and instream habitat and channel form

The riparian zone is critical to river health, providing litter and debris to the river system, filtering light and water, buffering streams from sediments and nutrients and influencing the conditions of the beds and banks of streams. Management of riparian zones includes the needs of the adjacent riverine floodplain. Individuals, communities and agencies protect river frontages and riparian zones by fencing, revegetating, and controlling weeds.

Instream habitat management increases the diversity of instream conditions by targeting high priority threatened aquatic fauna, by extending the potential range of species through the removal of barriers and by improving water quality.

Management of the channel form includes: controlling the impacts of sedimentation on aquatic flora and fauna habitat in high priority areas and modifying instream complexity to create riffles, pools or slackwater habitats. The management of riparian and instream habitat and channel form is underpinned by programs such as environmental flows, water quality and broader riparian management.

Water quality (nutrients) in rivers and streams

Water quality issues identified in the Regional Water Quality Strategy focused on the impacts of nutrients and their potential to cause toxic algal blooms. The Strategy identified eight programs that have been underway since 1996. A review of the Strategy was completed in 2008, highlighting a range of successes under the individual programs.

In recent years, water quality management has had an emphasis on responding to decreasing inflows, protecting aquatic ecosystems from increased temperature, low dissolved oxygen and nuisance weed growth.

Elevated nutrients were identified as a high priority issue for water quality in the Goulburn Broken Catchment because of their potential to contribute to excessive algal growth that impact on social, economic and environmental values within waterways. Phosphorus loads are an indicator for water quality in rivers and streams because phosphorus is a limiting factor in the development of toxic blue green algal blooms and aquatic weed blooms.

The Goulburn Broken Catchment community's goal for water quality, set in 1996 and reviewed in 2008, is to improve and maintain water quality at optimum levels within and downstream of the catchment for native ecosystems, recreation, human and animal consumption, agriculture and industry. Targets for phosphorus loads are therefore reference points for progress toward this goal.

The resource condition target set in 1996 is to reduce potential phosphorus loads by 65 per cent by 2016. This will be achieved by reducing phosphorus loads from:

- irrigation drains by 50 per cent
- dryland and diffuse sources by 20 per cent
- wastewater management facilities by 80 per cent
- urban stormwater
- intensive agricultural industries and local water quality issues.

Targets were not set for nitrogen loads because the reduction of phosphorus and subsequent increase in nitrogen to phosphorus ratio was the Strategy's emphasis. Opportunities to reduce nitrogen, particularly where they were associated with phosphorus reductions, were pursued if it was cost effective.

2010-11 performance – River and wetland health actions table and climate change activities

Actions 2008-09, 2009-10 and 2010-11

Action		From funds received through Corporate Plan				
		Achieved ⁱ		Target	% achieved	
		2008-09	2009-10	2010-11		
Stock grazing action						
Fence wetland remnant	ha	609	8	78	236	33
Fence stream/river remnant	ha	2,563	n/a	354	150	236
Fence stream/river remnant	km	185	63	93	102	91
Off-stream watering	no.	122	48	21	32	66
Nutrient-rich and turbid water & suspended solids action						
Stormwater management projects ⁱⁱ	no.	1	1	0	0	-
Instream & near-stream erosion action						
Bank protection actions	km	8	5.35	16	22	74
Instream and tributary erosion controlled	km	102	207	131	40	327
Changed flow-pattern action						
Water allocated ⁱⁱⁱ eg wetlands, waterways	ML	840	32,361	238,943	100	note - ⁱⁱⁱ
Weed invasion action						
Weeds – aquatic weeds controlled (managed)	ha	26	27	418	124	337
Habitat loss management						
Rock ramp fishway	no.		1	0	0	-
Fish barrier removal	no.	1	0	0	0	-
Establish Significantly Enhanced Aquatic Refugia	no.	59	16	0	1	0
Surface water action^{iv}						
Drain – primary ^v	km	6	6	1	2	55
Drain – community	km	5	4	1	2	93
Farm reuse system ^{vi}	no.	66	76	7	0	-
Drain – divert water	ML	0	0	0	0	-
Irrigation systems – improved ^{vii}	ha	23,059	14,217	20,050	10,080	199

i Achievements include those from River and Wetland health investment areas (Environmental flows, Riparian and instream habitat and channel form and Water quality) and from complementary investment areas (SIR salinity, Dryland salinity and Biodiversity). Some targets were not achieved because efforts were directed at the fire recovery effort. Overall achievements were down on previous years because the Drought Employment Program concluded. Outputs were funded by the Victorian Government (Large Scale River Restoration project, Fire and Flood Recovery Programs and Base Program) and the Australian Government (Caring for Our Country Program). Outputs delivered through each fund source are available from the Goulburn Broken CMA.

ii Stormwater management projects are undertaken on a one-to-one funding basis with local government.

iii Target cannot be set with any confidence because achievement is prone to extreme variation, being affected by seasonal conditions. 2009-10 achievement is over recorded by 5,110ML.

iv Surface water management enables the removal of excess rainfall run-off from irrigated lands, alleviating soil salinity. Nutrient loads collected by the drains are managed through drainage reuse and management plans, and monitored against the resource condition target.

v Fencing and laneways are relocated along primary drains to control stock. Drains are also hydro-mulched and seeded to provide vegetative cover on bare batters.

vi Reuse dams allow for the collection and re-irrigation of high nutrient run-off, reducing the water and nutrient loads leaving the farm. Numbers decreased in 2010-11 as incentives are no longer offered while the Farm Water Program is running.

vii Improved systems include laser grading, automatic irrigation and micro-irrigation.

Climate change activities that relate to river health

The Goulburn Broken CMA participated in several projects that consider climate change and its impacts on river health and water quality:

- an investigation into the impact of climate change on water quality (a statewide initiative managed through the Goulburn Broken CMA in partnership with DSE, the Environment Protection Authority and other catchment management authorities)
- refugia planning
- dry inflow contingency planning.

2010-11 performance – Investment area 2a – Environmental flows

2010-11 performance (outputs achieved against targets set as a result of funds received) On target

The Goulburn Broken Catchment received above average rainfall for most of 2010-11, with widespread flooding in September and December and in some rivers during January and February. The associated flows provided all environmental flow components for the Catchment's rivers, connecting the floodplains and their wetlands to the river channel for the first time in many years.

A total of 211.2 gigalitres of the Environmental Water Allocation was released over six months to manage low dissolved oxygen levels in the Broken Creek and lower Goulburn River, to maintain minimum flows in the lower Goulburn River, and to ensure success of waterbird breeding events in the Barmah-Millewa Forest.

Works and operations

Minimum flows in the Goulburn and Broken Rivers were reduced under qualification of rights from 1 July 2010 and returned to normal levels in August 2010 following high inflows and increased storage levels.

As a result of high flows inundating the lower Goulburn River floodplain in December 2010 and poor quality water from the mid-catchment, dissolved oxygen levels at McCoys Bridge fell to between 0.5 and 0 milligrams per litre, resulting in fish deaths and crayfish leaving the water. The same problems were widespread in the Murray system.

Environmental water was deployed in the Goulburn River after the flood to speed recovery of river water quality, and it was deployed again after the January flood caused a second, but less severe, low dissolved oxygen event.

The Commonwealth Environment Water Holder provided 69.01 gigalitres to maintain flows in the lower Goulburn River at minimum levels. However, due to natural high river flows, no Commonwealth water was required.

With minimal azolla problems in 2010-11, flows in the Broken Creek were maintained to limit the occurrence of low dissolved oxygen. Without access to the inter-valley transfers used in previous years, flows from the Murray River and the Goulburn Water Quality Reserve were used.

A total of 428 gigalitres of Environmental Water was delivered to Barmah-Millewa Forest over six months from the Victorian (184.5 gigalitres) and New South Wales shares of the Barmah-Millewa and The Living Murray environmental water accounts. The releases were made to maintain continuous wetland flooding by bridging natural flood peaks in the Murray River. The flooding stimulated over 40 waterbird species to breed, including the threatened Brolga, Eastern Great Egret, Intermediate Egret, Little Egret, Rufous Night Heron, Australasian Bittern and Musk Duck.

Environmental water used during 2010-11ⁱ

Quantity, ML	Timing	Source
Water generated within and managed and used WITHIN the Goulburn Broken Catchment		
Goulburn River		
14,202	December – January 2011 ⁱ	The Living Murray allocation
3,292	January 2011 ⁱ	Goulburn Water Quality Reserve
8,627	January – February 2011 ⁱ	Murray Flora and Fauna entitlement
549	April 2011	Goulburn withheld flows and Murray Flora and Fauna entitlement
Broken Creek		
7,791	November to February 2011 ^{i,ii}	Goulburn Water Quality Reserve
Barmah Forest		
4,900	28-30 September 2010	Barmah-Millewa EWA
29,550	1-17 October 2010	
39,550	1-31 January 2011	
10,500	1-10 February 2011	
9,150	9 November 2010 & 25-29 November 2010	The Living Murray EWA
2,350	30-31 December 2010	
88,500	1-31 January 2011	
Water generated within and managed and used DOWNSTREAM of the Goulburn Broken Catchment		
Murray River (to manage blackwater event)		
18,798	November 2010	The Living Murray EWA
Murray River (Lower Lakes in South Australia)		
52,440	May & June 2011	Commonwealth Environmental Entitlements

i The purpose of watering was to elevate low dissolved oxygen levels to avoid large numbers of fish deaths.

ii 8,991 megalitres of River Murray flows were also passed through Broken Creek to help maintain water quality, reducing the need to deploy environmental entitlements.

Building on previous delivery of environmental water

With the assistance of partner organisations, the Goulburn Broken CMA has delivered and managed environmental water since early 2000 to maintain and enhance ecological values of rivers, floodplains and wetlands. The table below shows environmental water delivered by the Goulburn Broken CMA since 2000-01.

Wetland or stream	Quantity, ML										
	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Barmah	165,000 ⁱ (341,000 ⁱⁱ)		3,165 ⁱ (3,165 ⁱⁱ)			256,500 ⁱ (513,000 ⁱⁱ)		0 ⁱ (125 ⁱⁱ)	300 ⁱ (300 ⁱⁱ)	1850 ⁱ (2,370 ⁱⁱ)	184,500 ⁱ (428,000 ⁱⁱ)
Black Swamp								90	40	80	
Brays Swamp	260		220		266						
Broken Creek						Goulburn River Water Quality Allowance deployed					
Broken River											24.2
Doctors Swamp										40 (trial)	
Goulburn River											26,670
Kinnairds Swamp								426		400	
Moodies Swamp								50			
Reedy Swamp								544	500	300	

i Victorian share of the Barmah-Millewa and The Living Murray environmental water accounts.

ii Total volume delivered from the Victorian and New South Wales shares of the Barmah-Millewa and The Living Murray environmental water accounts.

Collaborations and communities

Barmah-Millewa Forest collaborations included:

- cross-state water management between New South Wales and Victorian agencies and the Murray-Darling Basin Authority (including 33 weekly teleconferences during the active water management period)
- extensive media relating to waterbird breeding and blackwater management.

Goulburn Broken CMA is represented on the Northern Victoria Irrigation Renewal Project's (NVIRP) Environmental Technical Advisory Committee.

The Wetland Working Group continued to provide community input to the management of wetlands in the Catchment.

Goulburn Broken CMA supported development of an environmental watering plan for Broken Creek on behalf of NVIRP.

Planning is underway to model aquatic refugia within the Catchment, in partnership with DSE, the South Australian Research and Development Institute and the Murray-Darling Basin Authority.

The Goulburn Broken CMA is also represented on several steering committees and planning groups related to management and planning of environmental water, including the State Environmental Water Reserve Officers Network, Northern Victorian Environmental Water Planning Control Board, State Wetland Working Group, Red Gum Expert Scientific Panel, National Water Commission's optimising native fish habitat project and Barmah-Millewa Icon Coordinating Committee, Barmah-Millewa Technical Advisory Group, Barmah-Millewa Consultative Reference Group and Barmah-Millewa Operations Group.

Environmental water planning and responding (includes research and development)

The Goulburn Broken regional refuge zonation project was commissioned to assist in identifying important refuge for fish in a drying climate.

Fish surveys assessed the impact of flooding and blackwater in the Goulburn River.

The Goulburn Broken CMA continued to support the Victorian Environmental Flow Monitoring and Assessment Program (VEFMAP) undertaken across the State at eight priority waterways, with work in this region focused on the Broken and Goulburn Rivers, and the Broken Creek. Monitoring in 2010-11, which included fish, vegetation and macro-invertebrate sampling, was reduced to fewer sites or took longer

than expected due to constant rainfall and lack of access to sites from high river levels. PIT (passive integrated transponder) tags were inserted into larger fish.

Variables influencing red gum and giant rush responses to flooding regimes were monitored with the Commonwealth Scientific and Industrial Research Organisation (CSIRO).

Assistance with collecting samples for a University of New South Wales pesticide in waterbird study was provided.

Real-time (website accessible) water quality monitoring of the Goulburn River continued. This monitoring helped with learning about the effects of overbank flows and the impacts on dissolved oxygen levels on the river.

Works continued at Tahbilk Wetland to secure and protect the Eel-tailed Catfish population.

Goulburn Broken CMA is a partner and project leader in an eWater Cooperative Research Centre project investigating how off-channel habitats might be affected under various water supply scenarios.

The condition of 28 wetlands across the Catchment was assessed using Index of Wetland Condition methodology. Since 2009, the condition of over 130 of the Catchment's wetlands has been assessed.

Staff presented to River Health Graduate Certificate students and the Winton Wetlands Scientific Technical Advisory Group and the CMA hosted Dr Wang, Vice Dean of Tsinghua University in Beijing. Dr Wang was a guest of the Australia-China Centre on Water Resources Research program at the University of Melbourne.

Papers were accepted in refereed journals, including H2O and Plant Ecology (211:219-233), and two chapters were included in a published book (Chapters 19 & 20 in Ecosystem Response Modelling in the Murray-Darling Basin).

Environmental watering plans, including recommendations on water management, were prepared for Black Swamp, Doctors Swamp, Kinnairds Swamp, Reedy Swamp and One Tree and Two Tree Swamps (combined) following receipt of funding from the State Government.

The scoping of works to help deliver environmental water to key wetlands in the SIR continued. The ecological response of waterbirds, frogs and aquatic vegetation to flooding was formally monitored at key wetlands across the Catchment. Fish communities supported by lower Goulburn River floodplain wetlands were investigated to inform delivery of environmental flows.

2010-11 performance – Investment area 2b – Riparian and instream habitat and channel form

2010-11 performance (outputs achieved against targets set as a result of funds received) On target

Significant effort and resources have been invested in recovering from damage along river frontages caused by the February 2009 Black Saturday bushfires and the series of unseasonal floods across the Catchment from September 2010 to February 2011. The Goulburn Broken CMA partnered the community and government agencies in a range of natural resource and community based activities, including fencing, revegetation, pest plant and animal control, sediment control, water quality monitoring and employment.

Works to improve instream habitat were investigated and commissioned on the Goulburn River and Broken Creek.

Key monitoring projects to assess the impact of works included:

- ecological effects of the Tungamah pipeline on ephemeral systems
- the effects of the Lake Mokoan decommissioning on turbidity and fish communities in the Broken River
- the contribution of slackwater habitats to instream diversity in the Broken River
- riparian trend assessment (application of the State-wide rapid appraisal method at Large Scale River Restoration sites on the Goulburn River).

Works and operations

Refer to the outputs table on page 91 for a list of onground achievements, which were funded by the Victorian Government (Large Scale River Restoration project, Fire and Flood Recovery Programs and Base Program) and the Australian Government (Caring for Our Country Program).

The statewide Securing Priority Riparian Areas project, which began in January 2011 and continues into 2011-12, aims to improve management through better extension and engagement, more rigorous management agreements, and increased compliance with Crown water frontage licence conditions (see progress in table below).

Securing priority riparian areas, Goulburn Broken Catchment, January to June 2011*

Tasks completed	Priority Crown land water frontages	Priority freehold water frontages
Field based riparian assessments ⁱ (no.)	22	18
New signed riparian management agreements ⁱⁱ (no.)	12	9
New riparian management licences on previously licensed Crown Land ⁱⁱⁱ (no.)	14	
New riparian management licences on previously unlicensed Crown Land ^{iv} (no.)	3	
Licences cancelled (no.)	0	
Crown Land under riparian management licence (ha)	121.59	
Freehold under riparian management agreement (ha)	65.52	
Waterway under riparian management agreement (km) ^v	23.205	

* Priorities identified in the Goulburn Broken Regional River Health Strategy.

- i Field assessment of property determines whether works are appropriate, and if so, options are discussed with landholder and an offer in the form of a riparian management agreement is made; in general, only one assessment per property is counted – if multiple assessments are required, details are included in comments.
- ii Must be signed by Goulburn Broken CMA and landholder.
- iii Includes licences that have been amended (eg from grazing or conservation to riparian management; or change to special conditions) or transferred into another name; must be processed by the Transaction Centre.
- iv New riparian management licences for previously unlicensed Crown Land; must be processed by the Transaction Centre.
- v Equals Crown frontage plus freehold land.

Collaborations and communities

Crown water frontages continue to be reviewed to improve management practices. Staff were supplemented in both DSE's Public Land Services program in Seymour and within the Goulburn Broken CMA's River Health Program. The project, managed through a regional agency committee involving Goulburn Broken CMA and DSE, moved across to the Securing Priority Riparian Area project in January and is starting to build up a compliance component.

Work continued on the control of Cabomba, a 'Weed of National Significance', at Lake Benalla and the Broken River. Late 2010 and early 2011 floods and increased turbidity resulted in a significant decrease in abundance and distribution of Cabomba in Lake Benalla and the Broken River. Although there was no drawdown of Lake Benalla in 2010-11, one is planned for the 2011-12 summer.

Goulburn Broken CMA continued to be represented on the steering committee of the Seven Creeks riparian restoration experiment, which is part of a project evaluating the effectiveness of habitat reconstruction in the Murray-Darling Basin.

The Goulburn Broken CMA and partner agencies attracted funds to address 'Weeds of National Significance' in the Barmah Wetland and in spring wetlands of the upper Goulburn River catchment. These projects are supported by key regional Traditional Owner Groups, the Yorta Yorta Nations Aboriginal Corporation and the Taungurung Clans Aboriginal Corporation.

The Goulburn Broken CMA supported State-related activities, including the Securing Priority Riparian Area project, works monitoring and the populating of AVIRA (Aquatic Value Identification and Risk Assessment;

a database that contains information on values and threats within individual management units and reaches in the Catchment). It will be used to inform the next version of the Regional River Health Strategy.

The Goulburn Broken CMA supported DPI and partners in developing the Goulburn Broken Fisheries Management Plan.

The Goulburn Broken CMA launched the 'Fish of the GB CMA Region' booklet during Native Fish Awareness Week, an initiative under Murray-Darling Basin Authority's Native Fish Strategy.

The Goulburn Broken CMA provided major input and resources into the Greater Shepparton City Council RiverConnect project.

Flooding also reduced opportunities to help protect the ecological character of the Barmah-Millewa Forest via a Caring for Our Country initiative being undertaken with the Yorta Yorta Nations Aboriginal Corporation.

The Goulburn Broken CMA, the King Parrot Creek community and agency partners developed a cooperative arrangement to protect and enhance the local catchment.

The Goulburn Broken CMA started planning for the region's Flood Employment Program after the Victorian Government announced financial support to employ primary producers and rural workers in fencing and repairing riparian areas, cleaning up flood debris and rubbish and controlling weeds, which will complement the erosion and public asset protection program that received support earlier in the year.

Planning and responding (including research and development)

Following a series of floods, significant resources were diverted to tasks such as capturing flood data, addressing community enquiries, assessing damage and threats to public and river health assets, and starting recovery initiatives.

The effectiveness of different management techniques on spring soak wetlands is being investigated.

An investigation into carbon sources used by instream organisms following the 2009 bushfires is showing there is no shift in basal resource use, although sites that were moderately to severely burnt had reduced trophic complexity, suggesting greater susceptibility to another catastrophic event.

Goulburn Broken CMA supported development of a draft monitoring and restoration project brief for rehabilitating Winton Wetlands and, on behalf of the Winton Wetlands Committee of Management, assessed the current distribution and composition of wetland vegetation to inform rehabilitation.

The CMA commissioned a feasibility investigation into facilitating fish migration at the Broken River Weir, the former Mokoan offtake structure.

See also 'Environmental flows' section page 93 for information on Broken and Goulburn River monitoring.

Activities focused on aquatic threatened species

Goulburn Broken CMA was heavily involved with threatened aquatic species projects through implementation of Actions for Biodiversity Conservation:

- aquatic species were monitored as part of threatened species recovery plans (Trout Cod in Seven Creeks and Macquarie Perch in Holland's, King Parrot and Hughes Creeks and in the Broken River)
- Barred Galaxias recovery actions were implemented in the upper Goulburn River Catchment as part of the Fire Recovery Program); predator (trout) barriers were maintained and populations of Barred Galaxias at risk from fire or drought were relocated to aquaria until conditions for return are suitable
- the status of Victoria's most southerly population of freshwater catfish (at Tahbilk Lagoon) was assessed and ongoing monitoring continues.

Instream habitat of the Broken Creek between Nathalia and Numurkah and of the Goulburn River between Seymour and Mitchelstown was assessed by Arthur Rylah Institute and plans for improving instream diversity were prepared for when site and climatic conditions improve.

Macquarie Perch populations were protected, as part of the Murray-Darling Basin Authority Demonstration Reach Project, through weed control, frontage enhancement and installation of large wood, although progress was hampered because onground activities focused on repairing flood damage.

The status of fish was reported in the Lower Goulburn Fish Communities project, part of a long term monitoring program being undertaken by Arthur Rylah Institute, with successful breeding of perch species, recorded for the first time in the monitoring program's history, thought to be linked to flooding and connection of the river to the floodplain for the first time in many years.

Freshwater catfish habitat was fenced and revegetated at Tahbilk Lagoon through a joint project under the Victorian Investment Framework. Instream habitat works and fish passage improvements are planned.

Impacts of turbidity on native fish communities in the Broken River are being monitored to assess the effects of decommissioning Lake Mokoan.

A PIT (Passive Integrated Transponder) tag reader was manufactured for the Shepparton weir to assess the migration and movement of native fish, including Murray Cod and Trout Cod, although high river flows meant that it could not be installed.

Large wood is being installed in the Broken River and the effect on native fish is being monitored.

Monitoring of the Hollands Creek Demonstration Reach project continued through Murray-Darling Basin Authority funding, although minimal habitat work was completed due to floods.

2010-11 performance – Investment area 2c – Water quality (nutrients) in rivers and streams

2010-11 performance (outputs achieved against targets set as a result of funds received) On target

In 2010-11, the focus of water quality management shifted to the impact of floods on instream water quality, a stark contrast to the preceding years of focusing on dry inflow conditions and catastrophic fire events. Research and investigations continued, including real-time monitoring and assessment of fires and floods on instream water quality.

Works and operations

Fire recovery work continued, with many actions such as protecting riparian areas by stock proof fencing and revegetation, aimed at reducing the impact on water quality.

A program of works through a business prospectus for water quality improvement was developed, which will help local agencies identify actions to enhance water quality in the upper Goulburn catchment and receiving waters.

Funds were allocated to Benalla Rural City Council to support the design of water quality treatment in the town's western outfall.

The frequency and type of monitoring within the Shepparton Irrigation Region was reviewed, resulting in changes that allow for low flow periods in particular and to create more efficient data gathering, while maintaining the integrity of records built up over many years.

Collaborations and communities

Regional partners continued to actively participate in regional water quality forums. The Goulburn Broken CMA continued its involvement in the North East Water Quality Monitoring Network, which merged with the North West Group in mid-year to form the Northern Partnership. The River and Contingency Planning Group played important roles in flooding, blackwater and low dissolved oxygen events. The Goulburn Broken Waterwatch program continued to be highly successful in educating and providing water quality data and Waterwatch community actions were increasingly linked to the GB RRHS priorities.

A waterway action plan for upper Seven Creeks, prepared with the local community, highlights the importance of riparian, instream and stability threats while considering water quality and flows.

The AshWatch Project, discontinued by Waterwatch in 2010-11, was replaced temporarily with a new Blackwater Project in the lower Goulburn and Broken River catchments.

Melbourne University received Australian Research Council funding, with the Goulburn Broken CMA as a partner, to investigate 'How effective are environmental flows? Novel approaches for monitoring and assessing ecological responses to large-scale flow alteration'.

Planning and responding (including research and development)

Real-time, website accessible, water quality monitoring of the lower Broken Creek system and the lower Goulburn River provided important information in responding to blackwater and low dissolved oxygen events.

The Goulburn Broken CMA, G-MW, Goulburn Valley Water, the Environment Protection Authority, DPI and DSE are represented on the Goulburn Broken Drought Water and River Contingency Planning Group, which plans for potential hazards as a result of drought and low flows. The Group maintained a GovDex wiki page, a web-based access site to facilitate communication between agencies.

Collection of data on nutrient load volumes was hampered by extensive flooding throughout the year. Damage to monitoring sites and backflow effects at gauging sites within the Shepparton Irrigation Region required more detailed assessment than usual, but flow volumes following the rains were significant. The effect of our water quality improvement programs over the years will be apparent once we complete the analysis.

An evaluation of the requirements of water quality monitoring within the Goulburn Broken Catchment was commissioned in partnership with G-MW and North Central CMA. A further State-commissioned project, managed by the Goulburn Broken CMA, is looking at the impact of climate change on aquatic ecosystem and river values, with the focus on water quality, which will increase our understanding of potential impacts so that priorities can be identified.

A 'draft' draft drying waters protocol was developed with DPI Fisheries, and final protocols are to be in place before the 2011-12 summer.

Long-term strategy implementation progress – River and Wetland Health investment areas

Investment area	Strategy life	2011	Certainty of rating	Trend ⁱ
Environmental flows	2004-present	On target ⁱⁱ	Medium	↑
Riparian and instream habitat and channel form	2005-2015	Below target ⁱⁱⁱ	High	●
Water quality (nutrients) in rivers and streams	1996-2016	Exceeding target ^{iv}	High	●

See Appendix 1 for notes on the analytical framework (page 82), including an explanation of the decision focus and ratings.

- i Assumed to parallel government funding trend.
- ii Outputs (scheduled between 2004 and 2011).
- iii Outputs (tasks and works scheduled between 2005 and 2011).
- iv Outputs (tasks and works scheduled between 1996 and 2011).

Environmental flows

In recent years, the Goulburn Broken Catchment Management Authority has delivered environmental entitlements to streams, wetlands and floodplains to improve water quality, promote the growth and germination of native vegetation, promote and support waterbird breeding, provide drought refuge for aquatic dependent species, provide habitat for native fish, and to reduce the growth of nuisance aquatic plants.

Significant planning has been undertaken to improve our understanding and capacity to respond to the impacts of lower inflows experienced under drier conditions of recent years and predicted climate change.

The Victorian Government, with support from the Goulburn Broken CMA and its partners, is increasing water availability by saving water in supply and delivery for farming through projects such as the decommissioning of Lake Mokoan (contributing to savings of 44 gigalitres) and the Northern Victoria Irrigation Renewal Project (Foodbowl Modernisation).

The Goulburn Broken CMA helped to develop the Northern Sustainable Water Strategy, which sets a blueprint for the management of water resources in the northern basins of Victoria.

The Goulburn Broken CMA prepares annual watering plans for rivers, streams and wetlands, which outline how and why the Goulburn Broken CMA proposes to use available environmental water resources to protect and restore rivers and wetlands.

Riparian and instream habitat and channel form

High rainfall events in 2010-11 resulted in significant floods, including some of the highest on record, impacting positively and negatively on environmental, social and economic values.

Catastrophic fires in 2009 impacted on the condition of riparian zones in large areas of the upper Goulburn Catchment, triggering recovery activities that continued into 2010-11.

The community continues to use riparian incentives to maintain sites where works have been undertaken.

Water quality (nutrients) in rivers and streams

Strategy development, implementation and review processes are closely aligned with best practices identified in the National Water Quality Management Strategy.

There have been major improvements in wastewater treatment, irrigation reuse, dryland natural resource management programs, and protection of riparian lands.

Waterwatch continues to be a highly successful community education program and its activities are progressively being better integrated into natural resource management programs.

Strong relationships between major stakeholders have been developed, including a multi-agency memorandum of understanding.

The recent emphasis has been on blackwater, low dissolved oxygen and aquatic weed growth, away from nutrient management and algal blooms.

Catchment conditionⁱ – River and Wetland Health investment areas

Investment area	Examples of evidence of Catchment condition used to inform decisions	1990 ⁱⁱ	Certainty of rating	2011	Certainty of rating	Trend
Environmental flows	Water regimes of environmental features Management systems	Poor	Low	Good	Medium	↑
Riparian and Instream habitat and channel form	Index of stream condition Management systems	Poor	Low	Satisfactory	Medium	↑
Water quality (nutrients) in rivers and streams	Phosphorus loads in rivers and streams Blue green algal blooms Management systems	Very poor	Low	Satisfactory	High	↑

See Appendix 1 for notes on the analytical framework (page 82), including an explanation of the decision focus and ratings.

- i The reference point is taken to be the time just prior to European settlement, when the Catchment is considered to have been in excellent condition.
- ii Ratings for 1990 have been determined using our understanding in 2011 of the situation in 1990.

Environmental flows

Following several dry years, 2010-11 produced floods and wet conditions that extended from spring to autumn, providing all environmental flow components for many of the Catchment's rivers, floodplains and wetlands. Planned environmental water releases to most wetlands were not required. It was also the first year in which significant environmental entitlements were available for use in the Goulburn system.

Catchment management systems that will result in appropriate watering of the environment have been under development for well over a decade. Environmental Water Reserve funding started in 2004 following release of the Victorian Government's white paper, *Our Water Our Future*, and environmental water allocations were occurring prior to this. Research and monitoring has been initiated.

The Goulburn River below Lake Eildon, the Broken River below Nillahcootie, and the Broken Creek are regulated and the remainder of streams in the Catchment are unregulated. Water is extracted from many streams for stock, domestic and urban supply. This has impacted on the natural hydrology, ecosystem functioning, and dependant flora and fauna to varying levels.

Preliminary condition assessments of Barmah Forest show an increasing trend in health of overstorey and understorey species, reversing the trend during the past five to ten years of drought conditions.

Riparian and instream habitat and channel form

The impact of 2010-11 flood events were assessed and will continue to be monitored. Sites aligned with approved funding will be rehabilitated.

Significant achievements resulted from the fire recovery initiative, including management of riparian weeds and protection of riparian lands. Increased effort is being placed on areas of Crown water frontages through State investment and support.

Community action in recent years has been complemented by government investment, resulting in improved protection of riparian land.

Water quality (nutrients) in rivers and streams

The five year rolling average phosphorus load from the Goulburn Broken Catchment is below the long term target, equating to a reduction of 80 per cent from the benchmark year of 1993-94.

Institutional arrangements to manage water quality threats continued through several regional participant forums.

Extensive works programs have improved the state of the system for terrestrial and aquatic species and have contributed to improved water quality.

What's next?

Environmental flows

The Goulburn Broken CMA will work to secure flexible access to environmental water and will increase its capability in delivering water to multiple waterways and wetlands.

The Goulburn Broken CMA will continue to prepare annual water plans and environmental watering plans so that environmental water is used effectively and efficiently.

Opportunities for multiple uses of environmental water will be explored.

Ecosystem robustness will continue to be improved by enhancing breeding through opportunities from natural flows and other cues.

Refuge sites for aquatic species will continue to be identified and managed in all investment areas.

The capacity to manage and monitor environmental water will be maintained.

Riparian and instream habitat and channel form

The Goulburn Broken CMA will continue to improve long term capacity to deliver changes, especially the filling of knowledge gaps.

The community will continue to be supported in undertaking riparian protection programs.

Maintenance activities will need to be built into funding programs to ensure upkeep of past investment.

The Goulburn Broken CMA will continue to implement the Goulburn River Project – A National Icon project (a large scale river restoration project that began in 2008-09).

The major onground works initiative as part of the Flood Recovery Program will continue.

The Goulburn Broken CMA will continue to monitor the effectiveness of on-ground works through appropriate monitoring and evaluation.

The Goulburn Broken CMA will support facilitation of improved management of water frontages for the benefit of river health and water quality.

Plans will be made to strengthen the base program and next tranche of the Large Scale River Restoration Program.

Statutory functions of the Goulburn Broken CMA in land use planning, waterway by-laws and partnerships with local government will continue to be supported.

Water quality (nutrients) in rivers and streams

The real-time monitoring initiative as part of the Bushfire Recovery Program to safeguard water quality will be reviewed.

The Goulburn Broken Regional Water Quality Forum will continue to meet and the Water and River Contingency Planning Group will continue to be supported.

Key waterways in the region will be assessed against the State Environment Protection Policy (Waters of Victoria).

The likely impacts of climate change on waterway values, in particular water quality, will be investigated.

The assessment of ecological and water quality responses to water efficiency projects will be finalised.

Climate change activities that relate to river and wetland health

A review of the regional river health strategies prior to 2013 will be planned, based on the direction of the Victorian Strategy for Healthy Rivers, Estuaries and Wetlands, The GB RRHS will be expanded to cover climate change implications.

The Goulburn Broken CMA will maintain a strategic and ongoing role in projects that enhance the knowledge base in climate change and associated impact of low inflows.

Opportunities to improve refuge planning will be fostered, with results incorporated into regional strategic and Environmental Water Reserve programs.

Efforts to identify and monitor potential threats of reduced flows and extraction (both regulated and unregulated) will continue.

Investment area 2d – Floodplain management

Compiled by Guy Tierney and Rod McLennan. See www.gbcma.vic.gov.au for more details.

Annual performance, long-term strategy implementation progress and Catchment condition change

Decision focus ⁱ	Examples of evidence used to inform decisions	1990 ⁱⁱ	Certainty of rating	2011	Certainty of rating	Trend
2010-11 performance	Outputs (against targets set as a result of funds received) Corporate Plan KPIs related to flood protection (see page 52)	n.a.	n.a.	On target	High	n.a.
Long-term strategy implementation progress	Strategy tasks implemented (scheduled to be completed between 2002 and 2012)	n.a.	n.a.	Exceeding target	High	● ⁱⁱⁱ
Catchment condition ^{iv}	Flood regimes provided for ecosystems from flood protection planning Financial savings from prevention of flood damage Systems in place related to flood protection	Very poor	Low	Poor	Medium	↑

i See Appendix 1 for notes on the analytical framework (page 82), including an explanation of the decision focus and ratings.

ii Ratings for 1990 have been determined using our understanding in 2011 of the situation in 1990.

iii Assumed to parallel government funding trend.

iv The reference point is taken to be the time just prior to European settlement, when the Catchment is considered to have been in excellent condition.

Background

The Goulburn Broken CMA provides advice about flooding, planning controls and scheme amendments to local councils. The Goulburn Broken CMA is a referral authority under the *Planning and Environment Act 1987*, the *Subdivision Act 1988*, and the *Building Regulations 1996*.

The Goulburn Broken CMA coordinates implementation of the Goulburn Broken Regional Floodplain Management Strategy (2002-12).

The vision to plan for and manage floods is:

“...to achieve best practice floodplain management for the benefit of current and future generations...”

Two long-term targets have been proposed to provide measurable reference points of progress in achieving the vision:

- reduce the impact of flooding on the built environment
- provide ecosystems with natural flooding patterns where appropriate.

The use of engineering techniques such as hydrology (the study of rainfall run-off) and hydraulics (the study of water movement over land) help us understand impacts of flood on urban and rural communities. In recent years, these techniques have been used to understand environmental flow regimes in river and wetland systems.

Understanding flood risk (likelihood and consequences) is paramount in any flood study that underpins the investigation of mitigation and management options. Such options include structural solutions (levees, retardation basins), flood warning and emergency management arrangements, and planning controls.

A technical model that shows the benefits of investing in flood management has been prepared, and a new model is under development to better communicate with the community what targets have been set, and progress made, in reducing the cost of flood damage.

Implementation of the Regional Floodplain Management Strategy is opportunistic and is subject to funding under Australian and Victorian Government incentives through programs such as the current Natural Disaster Resilience Grants Scheme. A review of the Strategy's nine programs is available at www.gbcma.vic.gov.au.

Government investment, \$'000

2008-09	2009-10	2010-11	2011-12 ⁱ	Trend
440	614	832	362	●

i Forecast based on advice at August 2011.

Major strategic references

- Goulburn Broken Regional Floodplain Management Strategy 2002-12
- *Planning and Environment Act 1987* (Section 55)

Climate change and flood protection

The effect of climate change on the flooding of large rural catchments such as the Goulburn Broken is not well understood.

Intense rainfall is likely to occur more frequently. This would particularly cause flooding problems in smaller catchments covering just a few square kilometres or less, with such problems being dampened over larger rural catchments. However, techniques to design flood estimates for large rural catchments are not well advanced. Further investment in collaborative research is needed:

- to identify appropriate new methodologies in flood study investigations
- to address stormwater (flash) flooding in urban centres where climate change is likely to have a profound impact (the damage bill from flash flooding is estimated to be the same as that from riverine flooding)
- to prepare new flood maps to enable risks to be managed
- to identify appropriate freeboard requirements over and above the standard 300 millimetres that the building regulations allow for new buildings and associated infrastructure such as roads, communications and plant.

In addition, new findings on climate change and its implications, such as for emergency management, need to be included in policy and put into practice.

2010-11 performance

Systems developed over the decade-long dry period proved to be successful after being given ultimate real-life tests in the form of several major floods during 2010-11. Goulburn River basin streams had once in 50-year floods while Broken River basin streams had once in 25-year floods. (See case study on page 101.)

Of the many tasks undertaken (and summarised in the table below), highlights were:

- Mansfield Shire Council committed to a major planning scheme (flood) amendment

- finalisation of the Ministerially approved flood mitigation plan for Castle Creek in Euroa
- funding sought for five new initiatives under the Natural Disaster Resilience Grants Scheme
- 98 per cent of statutory planning applications are determined within prescribed time limits
- testing of the new beta Statutory Planning Geographic Information Systems on behalf of all catchment management authorities.

Floodplain management actions 2010-11

Action		From funds received through Goulburn Broken CMA's Corporate Plan	
		Achieved	Performance ⁱ or progress in 2010-11
Integrating knowledge into planning			
Subdivisions	no.	88	Responded within statutory time frames to applications to the eight municipalities in the Goulburn Broken CMA.
Dwellings	no.	246	
Retail, shop or office buildings	no.	20	98.2% determined within prescribed time limits.
Planning scheme amendments	no.	14	
Whole farm plans	no.	82	
Flood information enquiry	no.	143	
Planning other	no.	185	
Flood planning amendments gazetted	no.	0	90% completed. Mansfield Shire flood amendment has been prepared.
Flood levels declared	no.	n.a.	Refer to flood atlas on website.
Victorian Civil Administration Tribunal and panel hearings attended	days	3	
Floodplain implementation	no.	1	Castle Creek levee was finalised in mid-2011. Moiria Shire Council has substantially completed civil works associated with levee upgrade for Nathalia Township. The emergency management and flood warning system for Nathalia is also nearing completion, including new stream gauging stations. Greater Shepparton City Council is implementing mitigation works at Tatura. Functional design and consultation completed for Seymour and Barmah is underway
Gathering new knowledge			
Ground level information	no.	3	In association with the DSE, the Goulburn Broken CMA has invested in high resolution Airborne Laser Survey in the Buxton, Flowerdale and Kilmore-Broadford region. Survey results will be delivered in late 2011.
Urban flood studies and management plans	no.	2	Flowerdale Flood Mapping Project is 50% complete. Nagambie Flood Study is yet to commence, as is the Shepparton overland flood study investigation. Project Brief has been prepared and ready to commission consultants. Violet Town Floodplain Management Plan completed and forms the basis for mitigation work funding application. Numurkah Flood Study 90% completed
Regional flood studies and management plans	no.	2	Regional Murray Flood Study completed and the final report is expected soon. Goulburn River – Eildon to Bunbartha: Environmental Water Reserve option being explored.
Creating awareness			
Flood education and awareness program	no.	1	Statewide flood website launched late 2010.

i Most actions are performed reactively so no targets are set annually.

Long-term strategy implementation progress

Most listed tasks have been completed well ahead of schedule.

It is assumed that tasks completed will result in reduced impact of flooding on the built environment (when it floods).

Following completion of a number of floodplain management plans, responsible authorities are implementing recommendations including structural and non-structural works using local, State and Australian government grants.

Improving the natural flooding patterns of ecosystems via sensitive floodplain protection planning is a task in progress.

Catchment condition

The built environment is in a better state with improved pre-development planning and flood response systems. The prolonged dry period from 2002 resulted in negligible flood damage until the significant floods of September 2010, which caused agricultural losses and damaged waterways and associated infrastructure.

The Goulburn Broken CMA is beginning to align floodplain flood management with the Environmental Water Reserve program, such as for Goulburn and Murray Rivers (Barmah-Millewa Wetlands). Large opportunities such as the lower Goulburn River floodplain remain uncaptured.

What's next?

Flood awareness and education programs regarding access to flood data will continue following the launch of the floodvictoria website, www.floodvictoria.vic.gov.au.

Revised flood mapping using newly captured terrain elevation data against newly derived information contained in the 100-year flood level atlas will continually be improved.

Planning scheme amendments to incorporate new mapping and performance based assessments will continue.

Flood warning and emergency management arrangements with partners, particularly Victorian State Emergency Service and councils, will be supported. Capital works and further flood studies will also be supported.

Recommendations of the Comrie Flood Review and the Environment and Natural Resources Committee's inquiry into flood mitigation infrastructure will be responded to.

Case study

A decade of effort increases resilience to floods

Goulburn Broken CMA's new approaches to managing floods have been given the thumbs up.

Systems developed over the decade-long dry period were given ultimate real-life tests in the form of several major floods during 2010-11.

Goulburn River basin streams, including the Acheron, Delatite and Rubicon Rivers and Castle Creek, had once in 50-year floods, while Broken River basin streams, including the Broken River and Holland Creek, had once in 25-year floods.

Communities around Yea, Euroa, Seymour, Benalla, Murchison, Jamieson, Shepparton and Mooroopna and rural areas along the Broken River and the lower Goulburn River were on alert.

The Goulburn Broken CMA's Flood Response Action Plan was activated for the first time.

Goulburn Broken CMA's control centre was set up to capture and communicate flood data, including stream level trends and potential impacts, to the Victorian State Emergency Service (whose responsibility includes communicating the flood response) and local government via Incident Control Centres at Wangaratta and Shepparton.

On a regional scale, damage to road infrastructure and agriculture, including stock losses, were minor.

Guy Tierney, Goulburn Broken CMA's Floodplain Manager, said, "The Bureau of Meteorology's advanced hydrologic modelling was very useful in determining potential flood impacts."

Guy has stuck to the task of planning and implementing flood mitigation plans for more than a decade.

"We were often questioned about the merits of this work during the extended dry period, but we knew it would eventually flood again. Our efforts have been vindicated," said Guy.

The Goulburn Broken CMA developed 22 flood studies and plans, resulting in:

- land-use plans that ensure new buildings, works and subdivisions are compatible with flood risk
- five flood warning systems
- structural works to mitigate floods at Euroa, Benalla, Nathalia and Cobram
- municipal emergency flood response plans.

Flood mitigation plans are being prepared for Violet Town, Seymour, Barmah and Cobram, and Benalla's is being reviewed.

Areas targeted for improvement include:

- an integrated flood intelligence platform, including linking of river gauge heights with flood inundation mapping data
- opportunities to improve flood warning and emergency management arrangements
- implementing new flood mitigation projects for Violet Town, Seymour and Euroa
- further rolling out of the FloodSafe program, in association with improved flood knowledge
- updated flood overlays in planning schemes to ensure appropriate checks and balances are included in decision making.

Investment area 3 – Land and Biodiversity

Compiled by: Vanessa Keogh, Steve Wilson, Jenny Wilson, Mark Cotter, Rhiannon Apted, Greg Wood, Kate Brunt, Melanie Haddow, Carla Miles, Janice Mentiplay-Smith, Jim Begley, Simon Casanella, Wayne Tennant and Rod McLennan. See www.gbcma.vic.gov.au for more details

Background

Biodiversity assets of the Catchment, such as native plants, support productive and sustainable landscapes by providing native species habitat, promoting healthy soils, cleaning the air and providing an aesthetically pleasing place to live and recreate. Large areas are valued for different and often competing land uses, providing challenges for the Land and Biodiversity team.

The Land and Biodiversity program was created in June 2010, bringing the former Dryland and Biodiversity programs together, to better integrate biodiversity conservation, production and social values when planning at the large (landscape) scale. Three discrete but highly connected investment areas are reported in this section under the Land and Biodiversity program:

- 3a Biodiversity (managed by Goulburn Broken CMA)
- 3b Land health, including dryland salinity (managed by Goulburn Broken CMA)
- 3b Invasive plants and animals (managed largely by DPI).

Investment is heavily guided by the Biodiversity Strategy for the Goulburn Broken Catchment Victoria 2010-2015 and the Invasive Plants and Animals Strategy 2010.

The Land and Biodiversity program's vision is listed in the Goulburn Broken CMA's strategic framework (Draft June 2011):

"Ensure that the catchment has healthy and resilient ecosystems through an actively involved and inspired community practicing sustainable land management (and reducing impacts on waterways)."

Although the three investment areas are managed separately, they are connected by common actions and intent, often on the same land, especially protection and enhancement of remnants, fencing along streams and wetlands, revegetation and pest plant and animal control.

The Goulburn Broken CMA relies heavily on others to undertake works, so close attention is given to partnerships, especially with Landcare, conservation management networks and other community organisations, DPI, DSE and local government.

The most significant issues for the Land and Biodiversity program in 2010-11 have been bushfire recovery, soils and carbon, community engagement models, climate change and local government.

Climate change and land and biodiversity

The Land and Biodiversity program is developing a Climate Change Integration Strategy to ensure that climate change considerations, including relevant State and Commonwealth Government strategies, are factored into Goulburn Broken CMA planning.

What's next?

Representation on community forums will be reviewed to promote broader inclusion of the Goulburn Broken CMA in land and biodiversity projects.

Sustainable land management practices will be promoted, with support from the Regional Landcare Facilitator, and education packages will be developed, including a focus on climate change, biodiversity and sustainable farming.

We will continue to identify mutual priorities with investment areas under Sustainable Irrigation and River and Wetland Health and Floodplain Management Programs.

Investment area 3a – Biodiversity

Compiled by: Steve Wilson, Jenny Wilson, Kate Brunt, Melanie Haddow, Vanessa Keogh, Carla Miles, Janice Mentiplay-Smith, Jim Begley, Simon Casanelia, Wayne Tennant and Rod McLennan. See www.gbcma.vic.gov.au for more details.

Annual performance, long-term strategy implementation progress and Catchment condition change

Decision focus ⁱ	Examples of evidence used to inform decisions	1990 ⁱⁱ	Certainty of rating	2011	Certainty of rating	Trend
2010-11 performance	Outputs (against targets set as a result of funds received)	n.a.	n.a.	On target	High	n.a.
Long-term strategy implementation progress ⁱⁱⁱ	Tasks (scheduled between 2000 and 2011)	n.a.	n.a.	On target	Medium	● ^{iv}
Catchment condition ^v	Native vegetation quality and extent Threatened species populations Water regimes of environmental features Management systems	Poor	Low	Poor	Medium	●

i See Appendix 1 for notes on the analytical framework (page 82), including an explanation of the decision focus and ratings.

ii The rating of Catchment condition in 1990 was determined using our understanding in 2011 of the situation in 1990.

iii Evidence related to aquatic, including wetland, biodiversity such as environmental share of water supply and environmental water is described in 'Investment area 2a – Environmental flows and water supply' and 'Investment area 2b – Riparian and instream habitat and channel form'.

iv Assumed to parallel government funding trend, which includes funding from investment areas 2a and 2b.

v The reference point is taken to be the time just prior to European settlement, when the Catchment is considered to have been in excellent condition.

Background

“Healthy ecosystems supporting viable populations of flora and fauna” is the vision for Biodiversity in the Goulburn Broken Catchment.

The Biodiversity program of the Land and Biodiversity unit is working towards achieving this vision through an expanding program that focuses on implementation of the Biodiversity Strategy for the Goulburn Broken Catchment 2010-2015.

To determine progress towards the vision, resource condition targets have been set, which are:

- Maintain extent and quality of all native habitat at 2005 levels in keeping with the goal of 'net gain' listed in Victoria's Biodiversity Strategy 1997.
- Increase the extent of native vegetation in fragmented landscapes by 70,000 hectares by 2030 to restore threatened Ecological Vegetation Classes and to improve landscape connectivity.
- Improve the quality of 90 per cent of existing (2005) native vegetation by 10 per cent by 2030.

The Biodiversity Strategy's initiatives and actions, which are aligned with Commonwealth and State strategies and priorities, enable progress towards targets. A threatened species target is being developed with DSE, promoting consistent reporting across all stakeholders. Further targets relating to the health of the Catchment's aquatic (including wetland) biodiversity are discussed in 'Investment area 2b – Riparian and in stream habitat and channel form'.

Partners are critical in implementing many of the Strategy's actions, such as delivering environmental management grants and tenders.

The Biodiversity Strategy for the Goulburn Broken Catchment 2010-2015 has five key areas for action, which are:

- 1 Adapting to change: proactively respond to threats and opportunities from socio-economic and policy drivers (including the Regional Catchment Strategy), seize opportunities for climate change mitigation and adaptation, and provide tailored support to a changing social landscape.

Government investmentⁱ, \$000

2008-09	2009-10	2010-11 ⁱⁱ	2011-12 ⁱⁱⁱ	Trend
1,390	2,512	6,467	4,065	●

i Plus co-investment in biodiversity from other investment areas.

ii The real increase in Biodiversity investment in 2010-11 was marginal: the apparent increase is due to internal reclassification and reallocations. (Actual investment in Biodiversity was increased marginally by increased Commonwealth funding.)

iii Forecast based on funding advice at August 2010.

Major strategic references

- Biodiversity Strategy for the Goulburn Broken Catchment 2010-2015
- Goulburn Broken Regional Catchment Strategy 2003
- Goulburn Broken Native Vegetation Plan 2003
- From the Fringe to Mainstream – A strategic plan for integrating native biodiversity 2004-07
- Securing Our Natural Future: a white paper for land and biodiversity at a time of climate change
- Victoria's Native Vegetation Management Framework
- Goulburn Broken CMA Climate Change Position Paper 2007

2 Nurturing partnerships: review and build on existing, and establish new, partnerships particularly with Indigenous groups, private landholders and community groups such as Landcare, particularly regarding biodiversity monitoring and reporting, and develop large scale collaborative projects.

3 Investing more wisely: invest limited resources wisely through translation of policy and research into implementation, and develop clear processes for biodiversity prioritisation at various scales using a range of mechanisms.

4 Building on our ecological infrastructure: enhance social capacity and ecological resilience, which involves transforming ecosystems so they can adapt to climate change, by building connections and linkages across existing biodiversity infrastructure on public and private land, including capturing opportunities for fragmented ecosystems, the national reserve system and key refuge areas, controlling invasive species, and developing appropriate fire regimes.

5 Legitimising biodiversity conservation: increase duty of care for the natural environment by highlighting the importance of biodiversity for quality of human life to all governments and the community, and increase opportunities for landholders to act as biodiversity stewards.

Climate change and biodiversity

Many species, ecosystems and vegetation communities are declining due to vegetation loss, functional changes to soils and water, and other threats. Climate change compounds these threats, resulting in further pressures on the resilience of some species and ecosystems. A wave of extinctions is forecast under runaway climate change scenarios. To address some of these threats, a Climate Change Integration Strategy is being developed, directing Goulburn Broken CMA programs to consider climate change and encouraging biodiversity outcomes from carbon sequestration activities.

2010-11 performance

Implementation of the Goulburn Broken CMA's Biodiversity Strategy 2010-2015, which was launched by Kate Auty (Commissioner for Environmental Sustainability) in July 2010, has begun and progress under the Strategy's five strategic directions is detailed below.

The Land and Biodiversity Unit received \$1.732 million from the Victorian Government through the Victorian Investment Framework (via Natural Resources Investment Program) and \$3.01 million through the Australian Government's Caring for Our Country.

Partnerships continue to be robust, with targets and timelines for all projects met and approximately 70 per cent of funds delivered to partner organisations for:

- onground works (DPI)
- permanent protection of high values sites (Trust for Nature)
- management and protection of threatened woodlands (North East CMA, DPI)
- threatened species protection (DSE)
- priority projects (community groups through an expression of interest process).

Significant levels of onground works were achieved, including fencing of 1,543 hectares of remnant vegetation. The Threatened Grassy Woodlands project, environmental grants and the Strathbogie Ranges Wetland Tender (which improved 77 hectares of habitat via stewardship agreements) made major contributions.

An emphasis on biodiversity management in the upper Catchment continued, addressing the impacts of the 2009 Black Saturday bushfires, which burnt over a third of the Catchment's woody vegetation. More than 118 hectares of critical habitat were protected and weeds were controlled on 126 hectares.

The impact of the fires and our recovery efforts on biodiversity is not yet known, however several fire-recovery research projects may impart important data.

Biodiversity Strategic Direction 1: Adapting to change

Natural resource management policy and socio-economic drivers are changing rapidly, providing significant threats and opportunities for biodiversity. The Land and Biodiversity Team's response includes working with agencies and community groups, building corporate partnerships, and partnering and fostering research with universities.

Goulburn Broken CMA Biodiversity Strategy 2010-15 priorities strongly align with DSE's later consultation draft, 'Victoria's Biodiversity Strategy 2010-15', including alignment with biolinks and flagship areas, strategic directions and initiatives.

Opportunities for non-government investment were explored through the Landcare Corporate Partnership role, with \$49,000 of corporate support for natural resource management projects being facilitated through Landcare networks. The project exceeded expectations, delivering 12 field days and training sessions for Landcare and community, engaging 29 businesses, and developing 2 business plans and action lists for 4 Landcare networks in Victoria.

The Land and Biodiversity Team actively participated in Landscape Logic, a research hub funded by the Australian Research Council, which found there were just a few significant drivers of change to native vegetation over the last 70 years, such as commodity prices and the introduction of pasture grasses, alerting us to be vigilant in detecting similar-scale current and emerging drivers. National policy focuses on adaptation to climate change, and this is likely to be a significant driver of land use change in future.

Submissions on 14 policies and strategies were prepared for various agencies, including the:

- Black Saturday Bushfires Royal Commission Final Report
- Alpine Resorts Co-ordinating Council's Alpine Resorts 2020 Strategy Review
- Carbon Farming Initiative (highlighting the importance of considering biodiversity conservation)
- Victorian Environmental Advisory Commissions (VEAC) Investigation into Remnant Vegetation, which the Goulburn Broken CMA influenced significantly.

The Land and Biodiversity Team continued to embrace resilience thinking, including strategic planning for the prioritisation of biodiversity assets, highlighting resilience during discussions with DSE as they developed their spatial model (Natureprint), and by participating in the Global Resilience Conference at Phoenix, Arizona.

Biodiversity Strategic Direction 2: Nurturing partnerships

The Land and Biodiversity Implementation Forum of natural resource management agencies was successfully initiated by the Biodiversity Team in 2010-11, and involved local government, DSE, DPI, Landcare networks, Parks Victoria, Yorta Yorta and the Goulburn Broken CMA. This successful engagement model will be expanded to include community education events as well as regular forums.

The Goulburn Broken Local Government Biodiversity Reference Group, convened by Moira Shire Council and funded by Caring for Our Country, is a collaborative forum for local government and agency partners. The Group's Backbone to Biolinks project, funded by the Victorian Local Sustainability Accord, is working towards a better informed and innovative approach to biodiversity conservation and climate change adaptation.

Biodiversity staff were actively involved in developing five local government strategies through the Biodiversity Reference Group, representation on strategy steering committees and participation in workshops and focus groups, which contributed to alignment of local and regional priorities.

The Goulburn Broken CMA supported Benalla Rural City Council, Greater Shepparton City Council and Murrindindi Shire Council in treating Chilean Needle Grass, a weed of National significance, on road reserves and other council-managed land, through the Threatened Grassy Woodlands Project.

The Goulburn Broken CMA's continued membership of the Goulburn Broken Greenhouse Alliance fosters integration of natural resource management into climate change adaptation and mitigation activities at local government and community levels.

Partnerships with Yorta Yorta people were strengthened through an Indigenous Works Crew, which implemented biolink works in the Dookie area through Caring for Our Country funding, and development of their natural resource management plan. Tuangurung people were involved with blackberry control in spring wetlands.

Internal partnerships were strengthened through joint projects with Goulburn Broken CMA's River and Wetland Health Program such as the Hughes Creek Biolink, Strathbogie Ranges Wetland Tender, and an NRIP-funded frog identification phone application. The need for better linkages between terrestrial and aquatic programs was highlighted by Landscape Logic data, which showed that a minimum of 30 per cent cover of native vegetation in a sub-catchment is necessary for improving water quality.

Conservation Management Networks (CMNs)

The success of the CMN model for increasing community engagement in biodiversity conservation resulted in the establishment of Strathbogie Ranges CMN and Lower Goulburn CMN (independently operated through NRIP funding), while the Whroo-Goldfields and Broken Boosey CMN's Coordinator continued to be supported financially by DSE and the Goulburn Broken CMA.

Whroo-Goldfields CMN achievements:

- 540 baits were laid by landholders in a coordinated fox control program with Parks Victoria and the Puckapunyal Army base.
- 45 people attended a biodiversity celebration breakfast that highlighted threats to the threatened species, the Golden Sun Moth.
- 35 people attended a Biodiversity Celebration Dinner featuring Dr Andrew Carter speaking on fox control.
- 4 newsletters were sent to 120 landholders and a Bush-stone Curlew booklet was sent to members.
- 10 kilograms of seed were collected for the Goulburn Broken Indigenous Seedbank.
- A biodiversity calendar was developed and distributed to landholders, schools, post offices and local government offices.
- 'Reptiles and Frogs of the Goulburn Broken Catchment', a booklet including a CD of frog calls, was completed.

Broken Boosey CMN achievements:

- A Certificate of Achievement was received from Parks Victoria in the Environment and Sustainability Award category at the Regional Achievement and Community Awards.
- The fifth Broken Boosey CMN calendar was produced, with all photographs taken by community members.
- 65 people attended a Biodiversity Celebration Day at Katamatite.
- Sites for direct seeding 50 hectares were identified.
- 6 Biodiversity Education Days were attended by 450 primary and secondary students, supported by the purchase of a purpose-built trailer.
- Threatened species recovery activities included collection of seed, propagation and planting of 600 seedlings along the Broken Boosey State Park and within Kinnairds Wetlands.
- Fox control was coordinated across private and public land, including 12,500 hectares of private land.
- Weeds along roadsides in the Dookie Biolinks region and Broken Boosey State Park were mapped and treated.
- Members of the Wedderburn CMN were shown highlights of the Broken Boosey CMN area.

Strathbogie Ranges CMN achievements:

- The Strathbogie Ranges CMN was established through NRIP funding, and more than 35 people attended the first meeting. It is now an incorporated entity, and 6 executive meetings were held to determine strategic directions, identify funding opportunities and increase membership.

Lower Goulburn CMN achievements:

- The preliminary stages of developing this CMN were initiated.

Biodiversity Strategic Direction 3: Investing more wisely

We continued to use a range of mechanisms to appeal to land managers, including market-based incentives and devolved grants. Regional, State and National priorities are considered in identifying regional priority areas for delivery of these mechanisms, including, biolink and flagship areas, and federally listed threatened vegetation communities.

The Biodiversity Monitoring Action Plan continues to guide research priorities and help us understand progress towards catchment targets.

A partnership with Melbourne University, 'Adaptive management: thresholds of native vegetation change', will inform assumptions about vegetation quality targets, improve understanding of links between outputs and outcomes, and refine the monitoring action plan.

Research by Charles Sturt University into the biodiversity value of vegetation thickets, which can occur through natural regeneration, was supported by the Goulburn Broken CMA.

A review of Biodiversity Action Planning (BAP) as a prioritisation and planning tool identified actions to foster better uptake by multiple agencies such as local government.

A review of threatened species priorities was initiated through a 'Project Prioritisation Protocol' approach, in collaboration with DSE, to better understand which species we should be targeting for funding, based on a range of criteria using expert opinion.

The Land and Biodiversity Team's input to DSE's Statewide Vegetation Standards review resulted in recognition of onground realities and regional priorities, such that the number of standards was reduced and the heterogeneity in vegetation types when determining planting densities was considered.

Long-term monitoring sites were established by the Australian National University to monitor biophysical change of threatened grassy woodlands and the Goulburn Broken CMA will continue to support this research into 2011-12. This will help in our understanding of the relationship between management actions (outputs) and biodiversity outcomes.

Biodiversity Strategic Direction 4: Building on our ecological infrastructure

The Strathbogie Ranges Wetland Tender in the high priority biolink area attracted 26 eligible tenders, of which 16 totalling \$210,385 for 20 wetlands covering 77 hectares were successful (see case study on page 109).

A total of 681 hectares of federally listed threatened box-grassy woodlands (federal, state and regional priority vegetation community) was protected. This was achieved through a two year collaborative project with North East CMA and Murray CMA (New South Wales), funded through the Caring for Our Country program.

Important, high quality sites purchased or covenanted for conservation included 142 hectares secured in state and regional priority areas by Trust for Nature's covenanting and revolving fund program.

A total of 488 hectares of remnant native vegetation was fenced through environmental management grants.

A total of 450 hectares was revegetated (direct seeding and tubestock planting) through environmental management grants, although a reduced emphasis from investors in revegetation is contributing to lower levels than previous years.

In the 12 months following the Black Saturday fires of February 2009, more than \$6 million was devolved to the Catchment's bushfire recovery program by the Victorian and Australian governments. All landholders in the fire-affected areas were contacted or had access to specialist advice and community support. More than 118 hectares of critical habitat were protected from grazing and habitats for 15 threatened species affected by the fire were rehabilitated. Weeds were controlled on 127 hectares.

NRIP-funded threatened species management focused on assessing the population status of the Striped Legless Lizard, Golden Sun Moth, Grey-crowned Babbler, Barking Owl, Alpine Tree Frog, Spot-tailed Quoll, Mountain Pygmy Possum and several threatened plant species.

The Goulburn Broken Indigenous Seedbank at the University of Melbourne's Dookie Campus continues to be an essential resource: 897 kilograms of seed was collected from seed orchards, such as the Euroa Arboretum, which continues to provide quality seed, and from natural populations.

The successful community-based Regent Honeyeater Project continues to restore remnant box-ironbark habitat for endangered species, planting corridors, enhancing remnants and providing habitat such as nest boxes. Monitoring of sites shows an increase in fauna richness.

Actions 2008-09, 2009-10 and 2010-11

Action		From funds received through Corporate Plan				
		Achieved ⁱ		Target	% achieved	
		2008-09	2009-10	2010-11		
Stock grazing management action						
Fence terrestrial remnant vegetation	ha	451	1,276	1,112	793	140
Fence wetland remnant	ha	609	8	78	236	33
Fence stream/river remnant ⁱⁱ	ha	2,563	63	354	150	236
Binding management agreement (licence, Section 173, covenant) ⁱⁱⁱ	ha	363	906	434	311	139
Grazing regime change ^{iv}	ha	-	233	119	300	40
Habitat loss management						
Revegetation – plant natives ^v	ha	945	1,403	1,383	1,619	85

i Achievements include those from complementary investment areas (SIR salinity, Riparian and instream habitat and channel form and Dryland salinity).

ii In 2009-10, 63 kilometres were achieved and this was reported, incorrectly, as hectares; this will not affect the overall order of achievement.

iii In 2009-10 and 2010-11, Trust for Nature delivered all of the hectares achieved.

iv In 2010-11 these outputs were lower due to post fire and flood access and service delivery issues.

v In 2009-10 natural regeneration from the Caring for Our Country Woodlands project and the E=M3C3 project are also included: 705 hectares and 10 hectares respectively. In 2008-09 natural regeneration from Bush Returns was 324 hectares.

Biodiversity Strategic Direction 5: Legitimising biodiversity conservation

A Biodiversity Celebration Day, held by the Broken Boosey CMN and supported by agency partners (page 24), attracted over 90 people who saw a showcase of achievements for the year, guest speakers (DSE's Steve Platt and Julia Stanley), and the Broken Boosey State Park. Plans were also discussed for the following year.

The Strathbogie Ranges Wetland Tender continued to legitimise biodiversity conservation in the Strathbogie Ranges, by promoting the spring wetlands more generally and providing management plans for all interested landholders. The commencement of the Strathbogie Ranges CMN will continue to promote biodiversity in the Ranges. This project recognised the importance of ongoing education in building relationships, developing momentum, creating networks and trust in delivery of future incentive projects.

A guide to the ecology and conservation of the iconic birds of the northern plains, the Bush Stone-curlew, was developed, showcasing landholder experiences. The guide was distributed to landholders across north central and north eastern Victoria.

The long-standing and popular Box-Ironbark Ecology Course continued to be supported.

Successful landholders in previous incentives projects, Bush Returns and Green Graze, were visited to determine change in funded sites, discuss management and other issues, reinforce the importance of the land under stewardship and continue relationships with landholders.

Fourteen Dryland Community Education Grant applications totalling \$28,000 were funded by NRIP, including 'frogs and farm dams' and 'Golden Sun Moth' projects.

Community groups were helped to establish interactive websites such as NatureWeb (www.natureweb.org.au), allowing open exchange on biodiversity or related topics. ChoughChat continues to be an important email forum to publicise events.

More than 50 people attended a Threatened Woodlands Field Day that included a Bush Stone-curlew Book launch.

River health activities focused on aquatic threatened species

The Goulburn Broken CMA's River Health Program includes a strong emphasis on aquatic threatened species. See page 95 for details of 2010-11 performance.

Climate change activities that relate to biodiversity

The Goulburn Broken CMA continued to support the Goulburn Broken Greenhouse Alliance and the Local Government Biodiversity Reference Group. Both groups received funding through the Victorian Local Sustainability Accord to implement climate change projects.

Investigations into opportunities and challenges associated with carbon markets continued with key partners and policy makers. The Goulburn Broken CMA has been pro-active in commenting on Carbon Farming Initiative policy with the aim of ensuring good biodiversity outcomes.

Monash University's 'Carbon Project', which aims to develop a robust modelling platform for the impact of reforestation on carbon, water and biodiversity for the Goulburn Broken Catchment, continued to be supported.

The Goulburn Broken CMA Climate Change Integration Strategy is being prepared, following on from the Climate Change Position Paper (2007). It will provide direction for how the organisation will integrate climate change into investment areas, look for opportunities through the carbon market and support mitigation efforts.

Several Goulburn Broken CMA works-oriented projects such as Backbone to Biolinks, Wetland Tender, Bush Tender and the Woodland Project, are building greater general resilience of the natural environment to various threats, including climate change. The Goulburn Broken CMA also continues to improve the way it develops priorities so that works can be better targeted to address climate change issues.

Long-term strategy implementation progress

The Biodiversity Strategy for the Goulburn Broken Catchment 2010-2015 was developed when most actions listed in the Strategic Plan for Integrating Native Biodiversity 2004-07 and the Native Vegetation Management Strategy 2000 were completed.

Progress against the updated Biodiversity Strategy's five strategic directions include:

- 1 Adapting to change. Strategic land use planning and delivery of incentives through a range of mechanisms has occurred. Aligning with state and regional priorities, identification of likely drivers of future land use change, finding alternative sources of funding, staying informed about carbon markets, and working towards resilient landscapes, especially in times of climate change, continue to be priorities.
- 2 Nurturing partnerships. Initiatives such as the Land and Biodiversity Forum (Goulburn Broken CMA-led) and the Local Government Biodiversity Reference Group (Moirā Shire-led) have been priorities, as have responding to partner strategies, identifying new partnership opportunities, and working with existing partners (Indigenous groups, DPI, DSE, Trust for Nature, Landcare Groups and CMNs and individuals) in delivering onground works.
- 3 Investing more wisely. A range of mechanisms have been adopted to appeal to landholders. Research and monitoring informs strategic planning and active adaptive implementation of onground works. Key assumptions for reporting on native vegetation targets have been reviewed and updated as new information becomes available. Several major issues have impacted on progress towards targets, including reduced vegetation extent such as post-fire clearing of native vegetation and over a decade of dry conditions. Quantifying changes in vegetation quality remains particularly difficult.

4 Building on our ecological infrastructure. Protecting, enhancing and revegetating have mostly occurred in high priority areas such as fire-affected land, biolinks and federally listed grassy woodlands, targeting high quality remnants and threatened species. Seedbank projects are critical in ensuring seed supply for revegetation and enhancement.

5 Legitimising biodiversity conservation. A range of methods have been used to legitimise conservation such as: annual site visits to stewardship properties; calendars, leaflets and booklets; field days, workshops, forums and an ecology course; community education grants; and grants and incentives to landholders willing to change land use practices. CMNs continue to be supported and initiated as an outstanding way of communicating biodiversity issues.

Catchment condition

Against a reference point of pre-European settlement, the condition of the Catchment's biodiversity has been rated as 'poor': it has not improved since 1990. However, the reference point of 'pre-European' to measure current condition may not be useful because we do not aim to restore landscapes to pre-European condition. If we used a reference point other than pre-European, then it is likely that catchment condition could be shown to have improved beyond 'poor'.

It is important that we try to measure changes in the condition of biodiversity at the Catchment scale, despite the uncertainty and complexity of how and what to measure; (For example, we do not know how much native vegetation is being cleared, either legally or illegally.) A range of assumptions, which have varying degrees of certainty, are used to determine progress towards Catchment-scale targets. Developing targets or measuring condition at sub-Catchment scale may be more meaningful.

While acknowledging the uncertainty around some measures, we appear to be making some progress towards vegetation extent targets (see graph on page 108). However, future rises in extent need to be much greater if we are to reach the 2030 target.

Major threats to the condition of biodiversity include the long-term ramifications of past broad-scale clearing, which could include species extinction – referred to as 'the extinction debt', and the increased likelihood and frequency of fire due to climate change and large-scale and frequent fuel reduction burning.

The measures used to determine progress towards targets include:

- hectares of high-quality remnants of native vegetation protected through covenanting or purchase by Trust for Nature and the National Reserve System
- amount of natural regeneration through land-use change, such as stock removal
- hectares of revegetation and remnant protection through stewardship programs, such as Bush Returns (Goulburn Broken CMA), BushTender (DSE), Strathbogie Ranges Wetland Tender, and the Woodlands Project.

Much of the progress in the condition of biodiversity relies on partnerships, which have strengthened via initiatives such as conservation management networks, Landcare and environmental water allocations.

The condition of aquatic (including wetland) biodiversity is described in 'Investment area 2a – Environmental flows and water supply' and 'Investment area 2b – Riparian and instream habitat and channel form'.

What's next?

Actions identified in the Biodiversity Strategy for the Goulburn Broken Catchment 2010-2015 will be prioritised and implemented.

Investment in biodiversity conservation will be increased through external funding sources.

We will ensure that biodiversity remains at the forefront of changes in, and development of new, relevant strategies, policies and delivery approaches.

Community support for biodiversity conservation as our natural life support system will be strengthened.

The Goulburn Broken Land and Biodiversity Program Team will continue to be built to strengthen biodiversity conservation and land health across a range of land uses.

Projects funded under the Australian Government's Caring for Our Country program such as the Biodiversity Incentives (Woodlands) and Regent Honeyeater Project will continue to be implemented.

There will be a general focus on building ecosystem resilience, defined through an assets-based approach and delivering targeted landscape-scale projects that consider a changing climate.

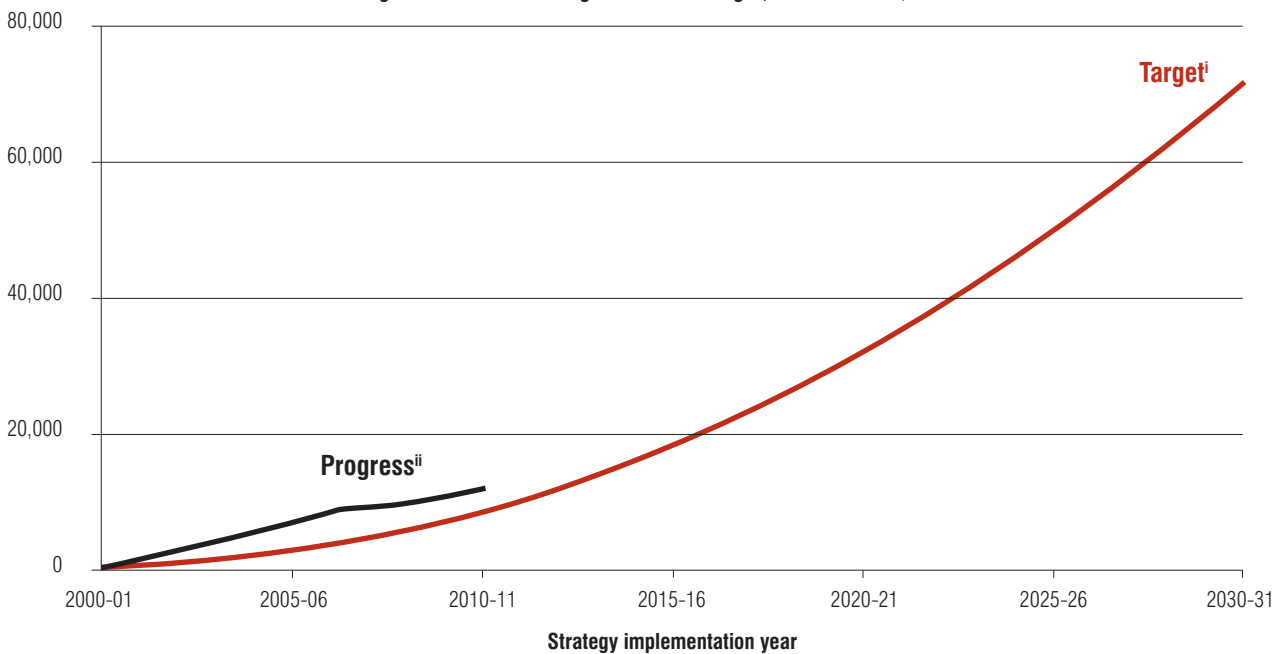
Achievement of current targets for biodiversity condition will be monitored and assessed to determine whether it would be sufficient in maintaining functioning and resilient ecosystems.

The Land and Biodiversity Program will continue to integrate and work cooperatively with the Sustainable Irrigation and River and Wetland Health and Floodplain Management Programs; in particular the alignment of priorities and improved targeting of works to protect key assets of high value in the Catchment.

Indigenous partnership initiatives will continue and grow. The Climate Change Integration Strategy will be finalised and implemented. There will also be continued liaison with the Carbon Farming Initiative 'scheme' developers to ensure positive biodiversity benefits.

The Goulburn Broken CMA biodiversity program will continue to support the Goulburn Broken Greenhouse Alliance and the Monash University's 'Carbon Project'.

Progress towards native vegetation extent targetⁱ, increase in area, hectares



i Resource condition target (revised 2009): Increase the extent of native vegetation in fragmented landscapes by 70,000 hectares by 2030 to restore threatened Ecological Vegetation Classes and to improve landscape connectivity.

ii Based on assumptions on gains in vegetation (such as revegetation and natural regeneration) and losses of vegetation (such as legal and illegal clearing). Vegetation burnt in the 2009 fires has not been included as a loss of extent, as it is assumed the area burnt will regenerate by 2030. Direct vegetation removal associated with the fires is assumed as a loss in the net outcome. Detailed assumptions can be found at www.gbcma.vic.gov.au.

Case study

Strathbogrie Ranges Wetland Tender

Providing landholders with financial incentives to manage the unique Strathbogrie spring-soak wetlands for conservation.

Compiled by Jenny Wilson

The Goulburn Broken CMA secured \$350,000 from the Victorian Government to protect wetlands in the Strathbogrie Ranges through a Market Based Instrument (MBI), the Wetland Tender.

The Tender built on Goulburn Broken CMA's Bush Returns approach, another successful MBI project.

A tender allows landowners to decide how much financial assistance they require to manage their wetlands, and uses public funding efficiently by ensuring that biodiversity assets targeted are best value for money.

The Strathbogrie Ranges Wetland Tender recognised the unique values of spring-soak wetlands, including their importance in ecosystem function, and that landowners require financial assistance in working towards healthy and productive landscapes, which benefits all Victorians.

Skilled and respected members of local Landcare groups were engaged to promote the Tender and assess the wetlands. Their local knowledge and respect within the community ensured high landholder participation.

After field days and media with an emphasis on no-obligation site visits and free management plans, landholders completed Expressions of Interest, which occurred between September 2010 and May 2011.

Thirty one wetlands were assessed using criteria such as the Index of Wetland Condition, connectivity and security.

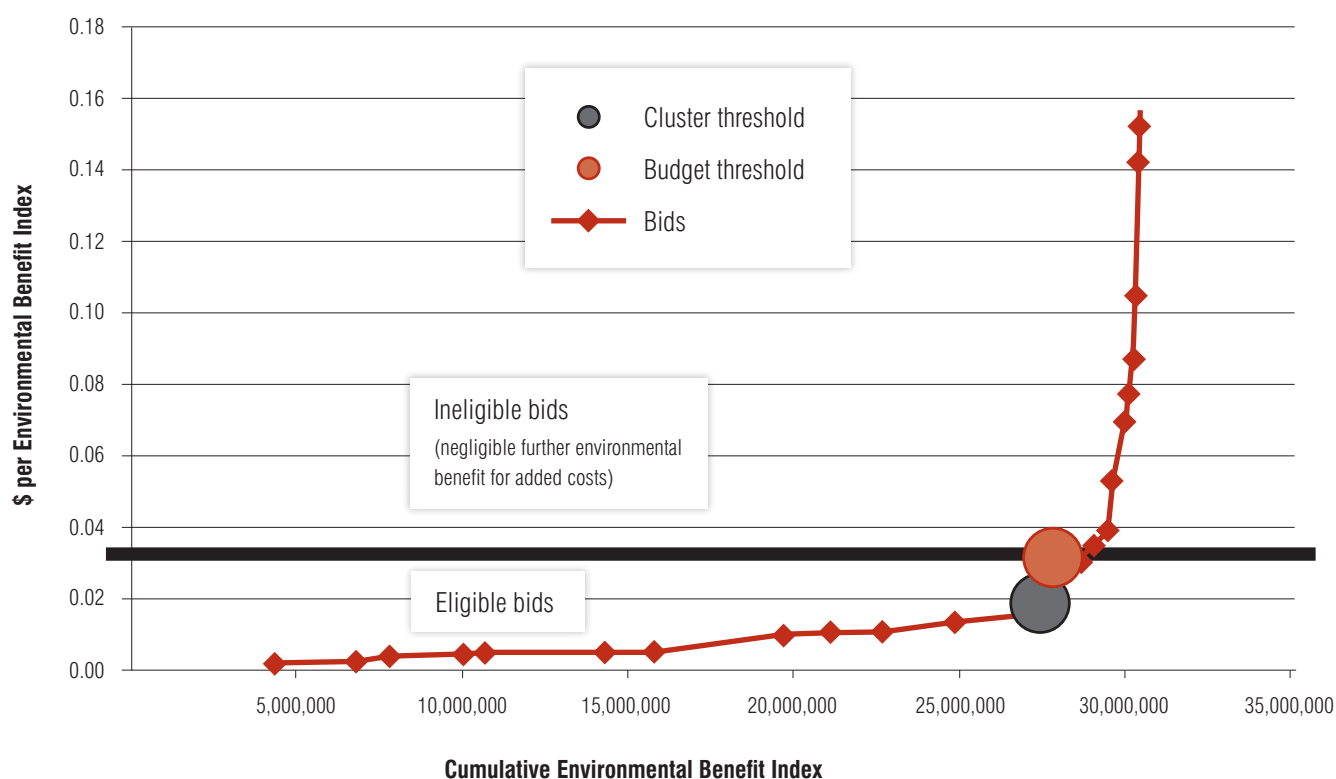
Twenty six eligible tenders totalling \$345,837 for 90 hectares of wetlands were received. Sixteen tenders totalling \$210,385 for 20 wetlands covering 77 hectares were successful, representing all of the value for money tenders based on the Environmental Benefits Index (see graph below). Given that these wetlands are rare and often only 1-5 hectares, this was a great result.

Most tenders were for 10-year management plans, and five Trust for Nature covenants were secured.

Funding is being sought to implement a similar Wetland Tender in 2011-12 in the adjacent Riverina Plains.

The EcoMarkets Division of DSE provided the methods for the Wetland Tender, and other partners included Arthur Rylah Institute (DSE), Trust for Nature, Hughes Creek Catchment Cooperative, Strathbogrie Tablelands Landcare Group and DPI.

2010-11 Strathbogrie Ranges Wetland Tender eligible and ineligible bids*



*Graph generated by DSE's EcoMarkets Division EnSYM computer model

Investment area 3b – Land health including dryland salinity

Compiled by Mark Cotter, Pat Feehan, Ian Oppy, Melanie Haddow and Rod McLennan. See www.gbcma.vic.gov.au for more details.

Annual performance, long-term strategy implementation progress and Catchment condition change

Decision focus ⁱ	Examples of evidence used to inform decisions	1990 ⁱⁱ	Certainty of rating	2011	Certainty of rating	Trend
2010-11 performance	Outputs (against targets set as a result of funds received)	n.a.	n.a.	On target	High	n.a.
Long-term strategy implementation progress	Outputs (scheduled between 1990 and 2011)	n.a.	n.a.	Below target	Medium	↓ ⁱⁱⁱ
Catchment condition ^{iv}	Watertable salinity and depths Salt disposed to Murray River Salinity of environmental features Management systems	Poor	Very low	Satisfactory	Low	↑

i See Appendix 1 for notes on the analytical framework (page 82), including an explanation of the decision focus and ratings.

ii Ratings for 1990 have been determined using our understanding in 2011 of the situation in 1990.

iii Assumed to parallel government funding trend.

iv The reference point is taken to be the time just prior to European settlement, when the Catchment is considered to have been in excellent condition.

Background

The role that salinity management has played in protecting and enhancing natural resources in the Catchment will undergo significant change.

The Catchment community and policy makers face the paradox that while the salinity threat from the Goulburn Broken dryland to the River Murray is significant, its threat to assets within the dryland varies with rainfall. Local expressions of salinity probably reflect a quasi-equilibrium state: the situation will get worse following wet periods and fall away in dry periods. However, initial watertable data (following exceptionally high spring and summer rainfall in 2010-11), indicates that thresholds might be shifting, which could be a significant risk.

As identified in 2009-10, the continuing review of Catchment targets will provide a more definitive assessment of the dryland salinity threat to the River Murray, informing the State's approach to agreements with the Murray-Darling Basin Authority, including contributions to its B register (as obliged under the Federal *Water Act 2007*).

At this stage, the Goulburn Broken Dryland Salinity Management Plan's adjusted target, developed in 2000 and 2002 respectively is to maintain increases to salinity levels of River Murray at Morgan (in South Australia) from the Goulburn Broken Dryland at or below 1.3 ECs (equates to 67,000 tonnes per year from the Dryland) by 2050. (The area of discharge-affected land target will be reviewed in light of the recently completed study by DPI on salinity risk and the reconceptualisation of the source of salinity risk across the State.)

Notwithstanding the outcomes of any negotiations between the State and the Murray-Darling Basin Authority, the salinity statement developed by DSE will result in an increased emphasis on managing discharge and less on recharge, unless clear, evidence-based arguments can be made on the link between discharge and the management of recharge in local circumstances.

Government investment, \$000

2008-09	2009-10	2010-11	2011-12 ⁱ	Trend
1,800	1,821	433	379	↓

i Forecast based on advice at August 2011.

Major strategic references

- Dryland Salinity Management Plan 1989 (and reviews 1995, 2001, 2008)
- (Murray-Darling) Basin Salinity Management Strategy 2001-2015

Asset based approach and dryland salinity

While salinity and soil erosion have been seen as major threats to the Catchment's natural and built assets, in many cases they are becoming secondary to more immediate threats in terms of investment.

The requirement to show clear links between the condition of assets and intervention, including an assessment of the achievability of the solution, the tractability of the problem and the capability of the land-use system to adapt, makes it difficult to justify managing the threats of salinity and soil erosion as threats in their own right.

The change in how we view and conceptualise ecosystem services from soils and the potential equilibrium states of salinity suggest that our description of the threats is inadequate. Much of what we consider secondary salinity that is a consequence of clearing of the land is likely, over longer time periods, more correctly thought of as having been a part of the landscape before clearing but probably less active and less obvious. This puts it in a half way state between primary and secondary salinity.

In mid-2011 DPI re-evaluated the dryland salinity risk and reconceptualised its causes to inform its management. This work needs to be complemented by DPI investigations into the watertable response to the 2009-10 season.

Soils provide ecosystem services, including habitat for biodiversity, sequestration of carbon, support of agronomic and ecological production, filtering and control of water supply, modifying waste products, and cycling nutrients. (This is being captured in the Assets Based Approach project and will be used to underpin soil health projects in 2011-12.)

Climate change and dryland salinity

Changing climate scenarios, including variations to rainfall patterns and increased frequency of extreme events such as bushfire and associated regrowth, will have an impact on salt and water yields across the Catchment, but to what extent remains uncertain.

Revegetation is important for reducing atmospheric carbon, potentially mitigating climate change and managing dryland salinity. However competing demands for water yields, land production, carbon storage and biodiversity need to be balanced for catchments to be sustainable under a drying climate. Goulburn Broken CMA is supporting a project to develop a model that determines carbon and water outcomes under varying land uses.

During dry times, prospective changes in agricultural production yield under climate change and dryland salinity scenarios are not sufficient to prompt landholders to broadly adopt salinity management practices. This increases the importance of the Goulburn Broken CMA to collaborate with communities and agencies.

2010-11 performance

Significant disruptions to normal works programs were caused by an extraordinarily wet spring and summer, a continued (but reduced) emphasis on recovery from the February 2009 Black Saturday bushfires, and delivery partners undergoing high staff turnover and loss of key staff.

The extraordinary wet conditions focused land managers on pressing problems of crop, pasture and stock management, away from lower priority natural resource management activities. The wet conditions also made it difficult to erect fences, which meant revegetation could not start.

Works and extension

Actions 2008-09, 2009-10 and 2010-11

Action		From funds received through Corporate Plan				
		Achieved ⁱ		Target	% achieved	
		2008-09	2009-10	2010-11		
Fence remnant vegetation ⁱⁱ	ha	1,660	1217	789	702	112
Irrigation drainage environment plans	no.	6	9	0	5	0
New irrigation referrals dryland zone	ha	8	11	0	5	0
Improved irrigation dryland zone ⁱⁱⁱ	ha	1,976	425	0	750	0
Sub-surface water action						
Revegetation – plant natives ^v	ha	814	1,311	1,116	1,189	94
Pasture – plant	ha	75	152	0	0	-
New groundwater pumps – public installed	no.	1	-	0	0	-
Planning for works action						
Whole farm plans – Level 1 ^v	no.	179	200	143	150	95
Whole farm plans prepared – Level 2 ^v	no.	94	47	75	50	150

i Achievements include those by complementary investment areas such as Biodiversity.

ii Includes 360 hectares of remnant protection in Bushfire Recovery Program in 2009-10.

iii An aggregate of properties and irrigated areas receiving intensive extension support for irrigation whole farm planning, system checks, soil moisture monitoring equipment, scheduling and major system changes.

iv Includes 324 hectares achieved through Bush Returns (Investment area 3, Biodiversity) in 2008-09.

v Level 2 is comprehensive and is equivalent to SIR's whole farm plan. Level 1 is a short-course that is a precursor to Level 2.

Collaborations and communities

The assets-based approach continues to be developed, with the assistance of DSE Statewide Services. The approach, now extending to the whole catchment, will provide background information for the upcoming review of the Regional Catchment Strategy.

The Goulburn Broken CMA continues to contribute to preparation of the State Soil Health Strategy, including managing the contract for engaging regional stakeholders in developing a consistent, statewide project logic.

Although the number of committed grants was down on previous years, there was a late surge in requests for grants. Our experience with the fire recovery and drought recovery programs suggests that late surges in interest are to be expected: land managers deal with more urgent issues before turning to the recovery of natural resources.

The Victorian Bushfire Recovery Program is coming to an end, prompting the setting of new standards to manage forward commitments. The Program has been highly successful in restoring and protecting assets and threatened species, through Parks Victoria and DSE regional staff. Assistance provided by the community was an example of the unparalleled commitment and potential of community-based groups to play a key role in service delivery.

The B register project is close to completing the first phase. Both the Independent Audit Group and Murray-Darling Basin Authority agreed to the project plan and DPI was commissioned to undertake the work (starting in 2009-10), with assistance from DSE and SKM.

An increased focus on soil and land health reflected a Commonwealth and State Government shift to a systems approach for catchment management and an emphasis on ecosystem services provided by soils, such as supporting biodiversity and sequestering carbon. The Goulburn Broken CMA's Soil Health Action Plan (2010) was reviewed and updated and a Land Health Forum was established to coordinate and consolidate agency activity in soil health. The Forum integrates technical thinking of soil health into existing biodiversity and salinity activities, using the asset-based approach presently being developed.

Refer also to the Broken Goulburn Implementation Committee section on page 21 for further achievements, especially integration of complementary issues and community involvement.

The Goulburn Broken CMA and DSE are developing a dryland salinity statement that will inform policy and investment.

See the 'Broken Goulburn Implementation Committee' section for further achievements, especially those related to integration of complementary issues and community involvement.

Planning and responding (includes research and development)

Salinity provinces were described via DPI's Future Farming Systems Research, highlighting the importance of local geological influences on the expression of discharge and the importance of water movement at the interface between groundwater flow systems when groundwater and soil conductivities change.

Unexplained bore responses to the very high spring and summer rainfall has prompted DPI's Future Farming Systems Research to review bore data and analyse implications for how we conceptualise surface water and groundwater dynamics.

Important deficiencies in documenting our planning processes, particularly the link between strategic imperatives and onground priorities, were exposed during development of the assets-based approach. In response, a descriptive and analytic framework for the assets-based approach is being developed, including adaptation and integration of INFFER (Investment Framework for Environmental Resources) principles.

The low impact concept for identifying salinity priorities was developed when it was recognised that salinity mitigation works need to coincide with preserving water resources, and activities to reduce deep drainage are only undertaken where there is high salt generation (measured in tonnes per square kilometre) and low catchment yield (measured in megalitres per square kilometre).

In 2008-09 the engineering options project highlighted the importance of understanding local surface and sub-surface geology in assessing risk of dryland salt discharge and making decisions on the most appropriate treatments. This work will inform both the B register project and the statewide salinity threat assessment process.

Hydrograph data shows a marked change in trend in many bores with many showing falling trends, although there seemed to be an apparent disconnection between surface and groundwater flows, especially in the uplands, with some hydrographs of deeper bores showing little evidence of the twelve years of below average rainfall until 2010. It will be important to understand what the bore response following the 2010-11 wet spell means: new data will provide an opportunity to recalibrate the way we conceptualise the hydrological system. Initial data indicates that surface and groundwater systems are unexpectedly being rapidly reconnected, raising questions about the effectiveness of revegetation options for salinity control on a large scale.

Long-term strategy implementation progress

The watertable response in 2009-10 forces us to question how close the system is to a threshold. Crossing a threshold would have serious implications, although it is highly unlikely we could intervene at sufficient scale to affect the consequences.

We do not know if we have shifted the equilibrium of groundwater in parts of the Catchment. The wet mid-1970s resulted in a significant rise in watertables and in 2010-11 a similar wetting is affecting a groundwater system that has not returned to the state of the early 1970s despite the preceding 13-year long dry period.

In Goulburn Broken CMA's 2008-09 Annual Report it was made clear that the resource condition targets set were not likely to be achieved. The Federal *Water Act 2007* places a legislative requirement for the Goulburn Broken Catchment's salinity registers to stay in credit. As a result the

Goulburn Broken CMA is actively engaged in the work of the Victorian Salt Disposal Working Group and the B register project.

The two threats to the salt register entries in the Goulburn Broken Catchment are increased water-use efficiency, which will result from the Northern Victoria Irrigation Renewal Program, and the combining of the A and B registers to provide a total catchment register balance.

Current B register entries in the dryland are known to be overestimates. Better estimates of the dryland salt exports are being developed through the B register reporting project, which will be very important in helping the Goulburn Broken CMA and the State to meet statutory obligations. This is due to report in early 2012.

Tasks to establish management systems (stakeholder forums, partnerships, technical input, review processes etc) have been implemented. This has contributed significantly to an integrated approach, as described in the Dryland Landscape Strategy (2008). For example, revegetation guidelines were amended in the 1990s to achieve biodiversity as well as salinity benefits.

Catchment condition

Continued high rainfall throughout 2010 and into early 2011 has caused some concern with the unexpected bore response in some parts of the catchment. The rapid reconnection of surface and groundwater systems flies in the face of our conceptualisations and has important implications for how salinity manifests as a problem, especially if we are entering an era of unstable seasonal patterns (as climate models are predicting).

The long-term threat to the River Murray remains, driven by groundwater intrusions into the main waterways of the Catchment.

There has been a mixed response to the drying climate in the riverine plains: groundwater levels in some areas continue to rise (and remain vulnerable) while in other areas increased groundwater use and lower inflows cause them to fall.

What's next?

Challenges are:

- the size and timing of delayed impacts of salinity remain an issue for the State and the Murray-Darling Basin Authority (legacy of history)
- the consequences of the varying climate and increased frequency of extreme seasonal events on catchment hydrology
- managing the trade off between salinity mitigation and preservation of flows: this is going to be exacerbated by increased water use in the fire-affected areas.

Regrowth in fire-affected areas is likely to have a major impact on stream flows for at least ten years because volumes of water used in regrowth will be so significant that groundwater flows will remain disconnected from surface water flows, even if the longest dry period on record ends.

The draft Murray-Darling Basin Plan, expected to be released in late 2011, is likely to drive salinity management changes over the next several years.

If salinity targets change, a transition in emphasis is expected to be smooth because management systems initiated through the salinity program are mature: complementary issues such as biodiversity and mechanisms such as incentives are well integrated.

The Goulburn Broken CMA will align the soils component of the program with the State's Soil Health Framework and DSE's Soil Health Strategy in 2011-12.

Investment area 3c – Invasive plants and animals

Report compiled by: Greg Wood, Rod McLennan, Wayne Tennant, Tony Kubeil and Tim Barlow

Annual performance, long-term strategy implementation progress and Catchment condition change

Decision focus ⁱ	Examples of evidence used to inform decisions	Pest plants				Pest animals				Overall trend
		1990 ⁱⁱ	Certainty of rating	2011	Certainty of rating	1990 ⁱⁱ	Certainty of rating	2011	Certainty of rating	
2010-11 performance	Outputs (against targets set as a result of funds received)	n.a.	n.a.	On target	High	n.a.	n.a.	On target	High	n.a.
Long-term strategy implementation progress	Outputs (scheduled to be completed between 2001 and 2011)	n.a.	n.a.	Below target	Very low	n.a.	n.a.	Below target	Low	● ⁱⁱⁱ
Catchment condition ^{iv}	Impact of pest plants and animals on assets. (Not available at Catchment scale.) Management systems	Poor	High	Poor	High	Poor	Medium	Poor	Medium	●

i See Appendix 1 for notes on the analytical framework (page 82), including an explanation of the decision focus and ratings.

ii Ratings for 1990 have been determined using our understanding in 2011 of the situation in 1990.

iii Extremely hard to rate, especially given that DPI's pest plant and animal activities have been removed from Goulburn Broken CMA's investment processes.

iv The reference point is taken to be the time just prior to European settlement, when the Catchment is considered to have been in excellent condition.

Background

Managing the impact of invasive plants and animals on agriculture and the environment continues to be a critical element of all natural resource management programs in the Goulburn Broken Catchment.

While private land managers make the most significant contribution to pest management, they receive strong support from DPI and public land managers such as Parks Victoria and DSE.

Although DPI pest plant and animal activities were removed from the Goulburn Broken CMA's investment process from 2009-10, DPI and the Goulburn Broken CMA continue to work collaboratively on pest plant and animal issues.

The DPI pest program aims to:

- prevent the establishment of new and emerging weeds
- contain high priority established weeds
- manage the impact of established pest animals such as wild dogs and rabbits.

Private land managers target a wide range of pest species and typically focus on those that are well established.

DPI however places more emphasis on new or emerging weed species, as preventing the establishment of new species is considered to be by far the most cost effective use of government weed management resources.

The Goulburn Broken CMA continues to support the management of invasive plants and animals through existing investment areas such as River health and Biodiversity, including the Second Generation Landcare Program.

Government investment, \$000

2008-09	2009-10 ⁱ	2010-11 ⁱ	Trend
1,100	-	-	●

i DPI Biosecurity Victoria's invasive pests program funding was removed from the Goulburn Broken CMA's investment process from 2009-10. Table does not include investments from Federal or State Government sources that are integrated into larger CMA programs.

Major strategic references

- Goulburn Broken Invasive Plants and Animals Strategy (2010)
- Goulburn Broken Regional River Health Strategy 2005-15 (Addendum)
- Catchment and Land Protection Act 1994
- Invasive Plants and Animals Policy Framework

Climate change and invasive plants and animals

Climate change is a significant factor when considering the possibility of new weeds being introduced to the region or the potential spread of existing weeds. Changed climatic conditions may provide the opportunity for weeds previously considered unsuited to the Goulburn Broken environment to be introduced and possibly become established in the region. Locally, existing weeds may spread more quickly and into new areas where previously they were not considered a threat. A strategic action identified in the Goulburn Broken Invasive Plants and Animals Strategy (2010) is to assess and regularly review threats. Climate change has been identified a key driver of change to the occurrence and distribution of invasive plants and animals and therefore will be a focus of threat assessments.

2010-11 performance

Despite DPI staff taking a lead role in locust and fruit fly response activities, pest management projects across the Catchment achieved excellent results during 2010-11. Projects continued to achieve high levels of voluntary compliance, and where necessary, DPI staff implemented effective enforcement operations.

All known infestations of State and regionally prohibited weeds were treated and adjoining properties were surveyed to ensure that infestations had not spread.

Works and extension

More than 90 per cent of 150 compliance notices requesting land managers to undertake works to manage priority pest plant and animal infestations (under the *Catchment and Land Protection Act 1994*) were enacted.

The Strathbogie Ranges Rabbit Compliance Program continued, covering 120 properties and including two new projects, in the Strathbogie (along Sevens Creek) and Gooram areas.

In cases where all extension approaches failed, blackberry control works were initiated by DPI through the compliance entry process, ensuring that successful works programs on adjoining properties were not compromised.

All known infestations of Camel Thorn and Giant Knotweed, State Prohibited weeds, on private and public land were treated via DPI staff coordination. The long term objective is to eradicate these species from the region.

DPI staff removed 350 Water Hyacinth plants from a new infestation in a G-MW drain at Tongala and a survey of 40 kilometres of drains and 13 dams in the area did not find any more infestations.

Treatment plans for all known sites of the Regionally Prohibited Weeds Artichoke Thistle, Wild Garlic, Ragwort and Serrated Tussock were implemented.

DPI and Parks Victoria staff continued to treat and survey the State Prohibited Hawkweed at Mount Buller during summer.

A willow control program was established on the Broken Creek to safeguard the ecological character of Barmah Wetland. Seasonal flooding from September to February and ensuing high water levels resulted in slow implementation of a pest plants and animals control program within the Barmah Wetland and the Yielma property. The program was established in 2009-10 to protect the ecological character of the Barmah reserve and surrounds.

Cabomba, a 'Weed of National Significance', is the focus of a control program within Lake Benalla and the Broken River to reduce its potential to spread into the Broken River and Broken Creek and potentially affect the ecological character of Barmah Wetland. The floods resulted in reduced Cabomba biomass and extent within the Lake and the Broken River.

The weed control program in the upper Goulburn Catchment, established in response to the 2009 wildfires, continued and concluded.

A total of 25 hectares of exotic vegetation was treated along riparian land of the Goulburn River. This was part of the Goulburn Large Scale River Restoration Project.

Actions 2008-09, 2009-10 and 2010-11

Action	From funds received through Corporate Plan					
	Achieved ⁱ			Target	% achieved	
	2008-09	2009-10	2010-11			
Weed invasion						
Weeds – aquatic weeds controlled/eradicated (km)	km	26	27	418	124	337
Targeted infestations of weeds in high priority areas covered by control programs (ha) ⁱⁱ	ha	36,964	4,125	424	508	83
DPI BV works - Targeted infestations of weeds in high priority areas covered by control programs (ha) ⁱⁱⁱ	ha		34,400	55,000	55,000	100
Pest animals						
Area of high priority rabbit infested land that are covered by control programs (ha) ^{iv}	ha	1,530	0	1,121	1,148	98
DPI BV works - Area of high priority rabbit infested land that are covered by control programs (ha) ^{iv}	ha		5,700	12,200	12,200	100
Area of high priority fox infested land covered by control programs (ha) ^v	ha	0	108,250	57,507	2	note ^v

i Pest Plant and Animal achievements do not include those for the Second Generation Landcare program as community groups are usually still completing their projects when this Annual Report is compiled. These outputs are collated approximately every five years (the last time they were included was in 2004-05).

ii This includes 'Weeds – woody weed management'. 2008-09 achievements include DPI, River health and Drought Employment Program works. DPI Biosecurity Victoria works were completed outside of the Corporate Plan from 2009-10. Achievements from 2009-10 include DPI Farm Services Victoria, River health investment area and Fire Recovery Program works only.

iii 2010-11 works completed by DPI Biosecurity Victoria (outside of the Corporate Plan). Increase in priority area covered by weed control programs due to increased focus on Regionally Prohibited Weeds across entire catchment

iv 2010-11 works completed by DPI Biosecurity Victoria (outside of the Corporate Plan). Increase in priority area covered by coordinated rabbit management programs due to implementation of additional project in 2010-11 in Dropmore area.

v Fox control outputs were achieved through the Broken Boosey and Whroo Goldfields Conservation Management Networks. 2010-11 target is low because of additional funding provided during the year (after Corporate Plan was finalised).

Collaborations and communities

The aim of the Weed Spotter program is to train appropriate people and organisations across the catchment to search for, identify and report high threat weeds. Several new infestations of high threat species were identified with the help of weed spotters and DPI coordinated subsequent treatment.

Planning and responding (including research and development)

Surveys of new State and Regionally Prohibited weed infestations resulted in 18 new infestations being treated across the Catchment.

The Goulburn Broken Invasive Plants and Animals Strategy was completed in October 2010, setting the high-level, general direction for invasive plants and animals investment in the Catchment for the next five years and supporting the State Invasive Plants and Animals Policy Framework (launched in late 2009). It is not an operational plan to guide day-to-day activities.

Long-term strategy implementation progress

Although the absence of a Catchment invasive pests strategy in recent years has had minimal impact on the delivery of onground programs, it has made program monitoring and evaluation difficult.

Monitoring and review of the Goulburn Broken Invasive Plants and Animals Strategy (2010; see above), which has just begun to be implemented, will be supported by the Goulburn Broken Invasive Plants and Animals forum.

Catchment condition

Significant bushfires in recent years, including the catastrophic February 2009 Black Saturday bushfires, improved access to weed and pest animal infestations, and, coupled with targeted bushfire recovery funding, resulted in many effective control programs.

Terrestrial and aquatic environments remain vulnerable to new and emerging weeds and land managers must remain vigilant to ensure early identification of new infestations.

While regional priorities for pest management have been identified, our capacity to deliver programs has declined in some areas.

Some significant weeds require active management to contain their spread and impact on environmental, social and economic values of waterways.

What's next?

All State and Regionally Prohibited weed sites will continue to be surveyed and all properties adjoining known infestations will be inspected.

All existing and new sites of State and Regionally Prohibited weeds will be treated with the aim of eradication.

DPI will continue to work with Landcare networks and the Goulburn Broken CMA to identify priority areas for rabbit management and will implement targeted compliance programs in these areas to support coordinated community effort.

Appendix 3: Outputs - detailed list of achievements

Standard GB Threat or Impact Managed	Output	Shepparton Irrigation Region Implementation Committee		
		Target ⁱ	Achieved	% achieved
Threat				
Land and water use practices				
Stock grazing (ha = terrestrial; km =	Fence terrestrial remnant vegetation (ha) ⁱⁱ	193	559	289
	Fence wetland remnant (ha)	5	0	0
	Fence stream/river remnant (ha)	48	118	246
	Fence stream/river remnant (km)	48	49	102
	Off-stream watering (no.)	21	14	67
	Binding Management Agreement (license, Section 173, covenant) (ha)	59	50	84
Induced Threat				
Saline water and high watertables				
Surface water ^{iv}	Landform/lasergrading (ha) ⁱⁱⁱ	10,080	19,546	194
	Drain – primary (km) ^v	2	1.1	55
	Drain – community (km)	1.5	1.4	93
	Weir – replace (no.)			
	Farm reuse system (no.) ^{vi}	0	7	
	Drain – additional water diverted from regional drains (ML) ^{vii}			
	Irrigation systems – improved (ha) ^{viii}	10,080	20,050	199
	Pasture – plant (ha)			
Sub-surface water	New groundwater pumps – public (no.)			
	New groundwater pumps – private (new and upgrade no.)	4	0	0
	Volume water pumped (ML)	400	0	0
	Tile drains – install (ha)			
	Revegetation – plantation / farm forestry (ha)			
Nutrient-rich & turbid water & suspended solids	Waste water treatment plants - install (no.)			
	Stormwater management projects (no.) ^x			
In-stream and near-stream erosion	Bed and bank protection actions (km)	8	3	33
	In-stream & tributary erosion controlled (km)			
Changed flow pattern	Water allocated – eg wetlands (ML) ^x	100	238,943	^{xi}
Weed invasion ^{xii}	Weeds – woody weed management (ha)			
	Weeds – aquatic weeds controlled/eradicated (km)	24	326	1,358
	Targeted infestations of weeds in high priority areas covered by control programs (ha) ^{xiii}	63	121	192
Pest animals ^{xii}	Area of high priority rabbit infested land covered by control programs (ha) ^{xiii}	3	3	100
	Area of high priority fox infested land covered by control programs (ha) ^{xiv}	2	2	100
Impact				
Habitat loss – terrestrial	Revegetation – plant natives within or next to remnants (ha) ^{xv}	430	267	62
	Revegetation – plant natives away from remnants (ha)			
Habitat loss – in-stream	Fish release (no.)			
	Vertical slot fishway (no.)			
	Rock ramp fishway (no.)			
	Fish barrier removal (no.)			
	Establish SEAR (Significantly Enhanced Aquatic Refugia) (no.)			
Habitat loss – wetlands	Reinstate flood regime (ML)			
	Construct new wetland (ha)			
Habitat loss – Threatened species	Threatened Species Recovery Plan and Action Statements (no. projects)	1	1	100
Planning				
	Whole farm plans (no.) ^{xvi}	140	256	183

i Targets are determined by considering levels of government funding as listed in the Corporate Plan only (government funds or funds from other sources arriving after the Corporate Plan was finalised, are not considered within these targets).

ii Includes 360 hectares of remnant protection in Bushire Recovery Program in 2009-10.

iii In 2010-11, the area achieved was established from the area that has been put under Whole Farm Plan for the year including modernised Whole Farm Plans and achievements from the Farm Water Program of 297 hectares.

iv Surface water management enables the removal of excess rainfall run-off from irrigated lands, alleviating soil salinity. Nutrient loads collected by the drains are managed through drainage reuse and management plans, and monitored against the resource condition target.

v Fencing and laneways are relocated along primary drains to control stock. Drains are also hydro-mulched and seeded to provide vegetative cover on bare batters. 6 kilometres were constructed during 2009-10 and 3 kilometres were prepared for handover to Goulburn-Murray Water for it to manage. Handed-over drains not accounted for in 2005-06 and 2006-07 were recorded in 2007-08.

vi Reuse dams allow for the collection and re-irrigation of high nutrient run-off, reducing the water and nutrient loads leaving the farm. Target was 0 in 2010-11 as incentives are no longer offered while Farm Water Program is running.

vii High flow diversion. None completed because of dry conditions.

viii Improved irrigation systems includes laser grading, automatic irrigation and micro-irrigation. The figures included from 2002-03 to 2009-10 are for the Shepparton Irrigation Region only. The 2010-11 figure includes improved irrigation activities as a result of the Farm Water Program (801ha).

ix Stormwater management projects are undertaken on a one-to-one funding basis with local government.

x The threats posed by water quality problems required a greater volume of environmental water to manage low dissolved oxygen in the Broken Creek in 2010-11. Delivery to wetlands is funded by environmental water provisions under the Living Murray program and the Victorian River Murray Flora and Fauna Bulk entitlement. Please note that the 2009-10 achieved figure was over recorded by 5,110 ML.

2010-11			Total achieved									
Broken Goulburn Region Implementation Committee			Total Catchment									
Target ⁱ	Achieved	% achieved	Target ⁱ	Achieved	% achieved	2009-10	2008-09	2007-08	2006-07	2005-06	2004-05	2003-04
600	553	92	793	1,112	140	1,276	451	710	769	519	771	512
231	78	34	236	78	33	8	609	1,794	22	6	24	13
102	236	231	150	354	236	n/a	2,563	2,536	726	115	91	218
54	44	81	102	93	91	63	185	315	162	n/a	n/a	n/a
11	7	64	32	21	66	48	122	95	73	89	74	86
252	384	152	311	434	139	906	363	373	1,625	758	797	(no.) 231
			10,080	19,546	194	14,170	20,476	8,525	4,490	7,700	7,700	9,000
			2	1.1	55	6	6	9	6	11	8	12
			1.5	1.4	93	4	5			6		20
			0	7		76	66	48	56	70	65	78
								200	75	235	675	160
			10,080	20,050	199	14,217	23,059	8,967	6,060	8,580	13,232	10,325
					0	152	75	391	718	1,543	544	330
							1	1		3	3	3
			4	0	0	9	11	24	19	11	10	19
			400	0	0	1,827	1,794	3,237	3,462	1,800	1,071	tba
									31	97	129	156
						1	1	1	3	2	2	1
14	13	95	22	16	74	5	8	13	12	16	41	11
40	131	327	40	131	327	207	102	543	19	502	916	83
			100	238,943	xi	32,361	840			510,000	266	
										75	70	79
100	92	92	124	418	337	27	26	53	39	33	21	
445	303	68	508	424	83	38,525	36,964	11,138	9,637	69,437	281,200	259,920
1,145	1,118	98	1,148	1,121	98	5,700	1,530	200		10,150	56,800	35,700
0	57,505		2	57,507	2,875,350	108,250		45,570	94,410	108,856	53,000	54,200
1,189	1,116	94	1,619	1,383	85	1,403	945	460	758	1,177	981	459
										117	74	248
										1	3	1
							1				5	
								1	8	6	4	
1	0	0	1	0	0	16	59	30	2	1.3	17	10
											3	
35	35	100	36	36	100	12	29	37	34	13	15	6
50	75	150	190	331	174	259	341	369	232	185	262	363

xi Target cannot be set with any confidence because achievement is prone to extreme variation, being affected by seasonal conditions.

xii Pest Plant and Animal achievements do not include those for the Second Generation Landcare program as community groups are usually still completing their projects when this Annual Report is compiled. These outputs are usually collated every five years (the last time they were included was in 2004-05).

xiii This includes 'Weeds - woody weed management'. 2008-09 achievements include DPI, river health and Drought Employment Program works. DPI Biosecurity Victoria works were completed outside of the Corporate Plan from 2009-10. 2010-11 achievements include DPI Farm Services Victoria, River health investment area and Fire Recovery Program works only. 2010-11 figures do not include target and achievement of 55,000 hectares for weeds in high priority areas and a target and achievement of 12,200 hectares for high priority rabbit control (refer to investment table Invasive Plants and Animals).

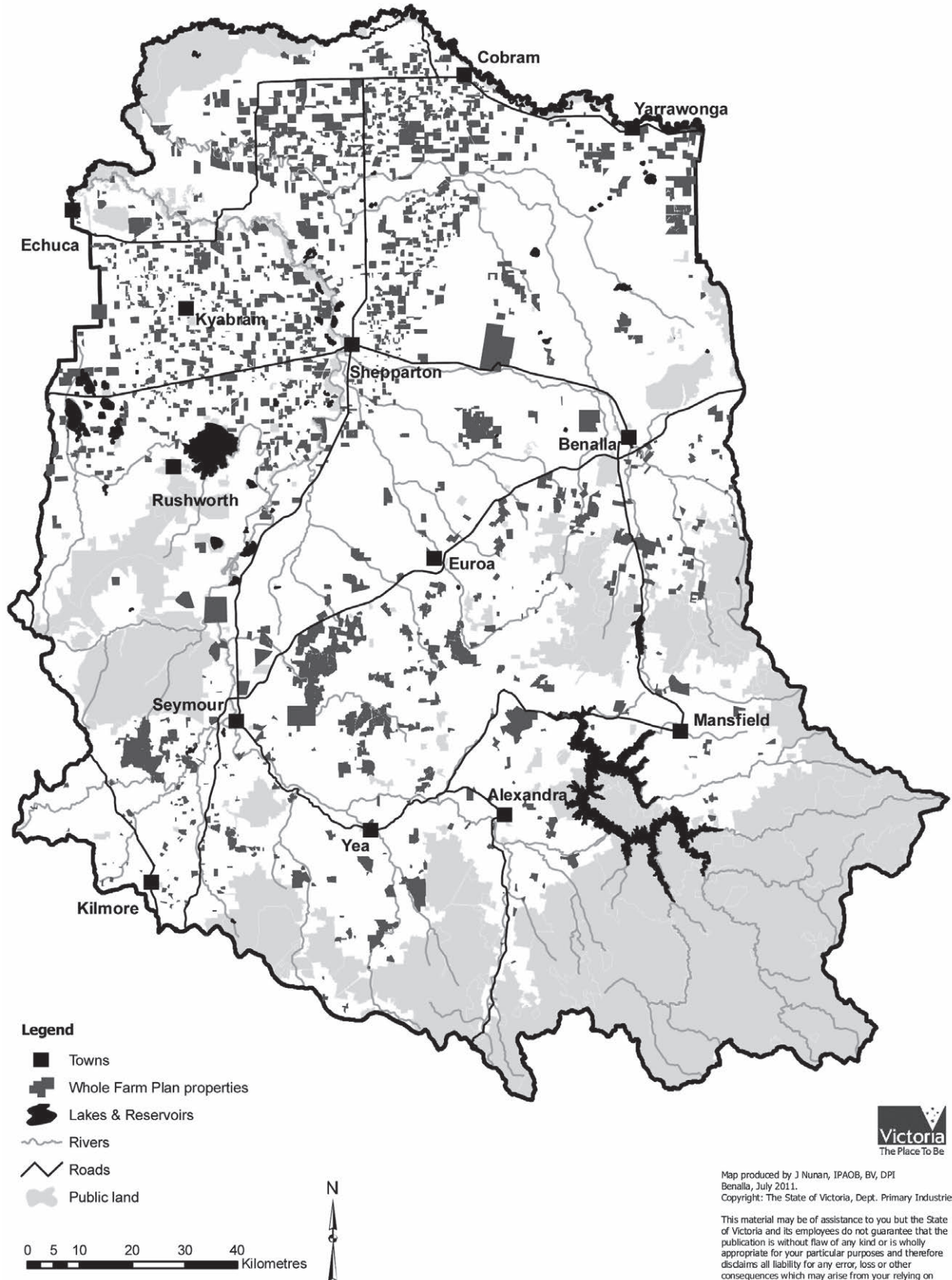
xiv Fox control works were achieved through the Broken Boosey and Whroo Goldfields Conservation Management Networks. Target was 0 in the Broken Goulburn Region because new funding arrived during the year (after Corporate Plan was finalised).

xv Natural regeneration achievements from Bush Returns are included in this: 0 hectares for 2007-08 and 324 hectares for 2008-09. Natural regeneration from the Caring for Our Country Woodlands project and the E=M3C3 project are also included: 705 hectares and 10 hectares respectively for 2009-10. The Green Graze program contributed 1,189 hectares to the grazing regime change works output in 2006-07, which is not included in the revegetation figures. Natural regeneration from the Caring for Our Country, Sustainable Farming Practices project are also included: 386 hectares for 2010-11.

xvi Figures for Broken Goulburn Region are for Level 2 whole farm plans, which is comprehensive and is equivalent to SIR's whole farm plan. Level 1 is a short-course that is a precursor to Level 2 and not included in these figures.

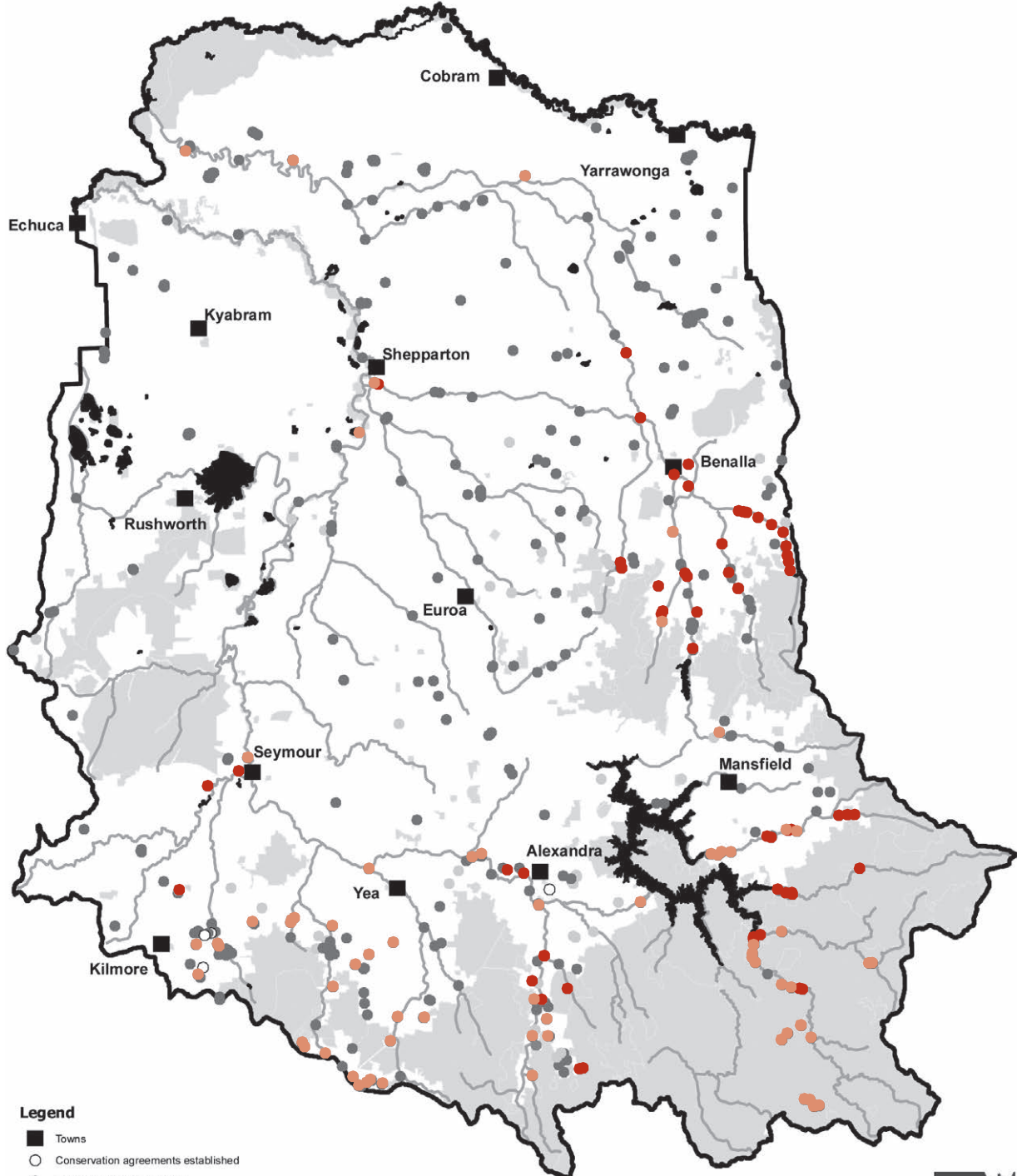
Appendix 4: Properties covered by a whole farm plan

To June 2011



Appendix 5: Works

To June 2011



Legend

- Towns
- Conservation agreements established
- Fenced and/or revegetated
- Grazing managed and/or off-stream watering installed
- Pest plants or pest animals treated
- Erosion controlled and/or bed and bank stabilised
- Lakes & Reservoirs
- ~ Rivers
- Public land

0 5 10 20 30 40
Kilometres



Map produced by Jennifer Nunan, DPI Biosecurity Victoria (BV)
Invasive Plants and Animals Operations Branch (IPAOB), July 2011.
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This map shows onground works completed in 2010-11 through Goulburn Broken CMA programs. These works relate to outputs listed in tables throughout this Annual Report. Some major works under River and Wetland Health and Floodplain Management and Sustainable Irrigation Programs are not shown. Ongoing works that landowners fully fund themselves are not shown. The Goulburn Broken CMA is investigating ways to capture such important contributions.

Appendix 6: List of media communications

Prepared by: Amanda McLaren

The following 2010-11 items are available at www.gbcma.vic.gov.au (apart from those tagged)

Title	Date	Type
Whole of Catchment		
1 Goulburn Broken CMA Celebrates success in Annual Reporting	July 2010	Media release
2 Goulburn Broken CMA Community Education Grants now open	September 2010	Media release
3 Goulburn Broken CMA reflections on achievements in 2010	December 2010	Media release
4 Ken Sampson memorial Fairley leadership Scholarship awarded for 2011	March 2011	Media release
5 Goulburn Broken CMA sponsors National Wetland Art Competition	March 2011	Media release
6 Goulburn Broken CMA celebrates World Environment Day with a cuppa!	May 2011	Media release
Land and Biodiversity		
7 Broken Boosey Conservation Management Network photo competition	July 2010	Media release
8 Barbed wire snags local endangered species	July 2010	Media release
9 Goulburn Broken CMA celebrates Biodiversity with the Conservation Management Network's	July 2010	Media release
10 Highlands and Strathbogie wetland field day	August 2010	Media release
11 New support for sustainable agriculture in the Goulburn Broken catchment	November 2010	Media release
12 Bunnings and Shepparton High School joins forces for Landcare	November 2010	Media release
13 Broken Boosey Conservation Management Network are regional achievers in the Goulburn Broken Catchment	November 2010	Media release
14 Broken Boosey Conservation Management Network and Winton Wetlands Committee of Management Fox Control program	January 2011	Media release
15 Capturing the essence of the local environment	March 2011	Media release
16 Golden Pancakes to help learn about endangered Golden Sun Moth	March 2011	Media release
17 Whroo Goldfields Conservation Management Network celebrates biodiversity with a breakfast	May 2011	Media release
River and Wetland Health and Floodplain Management		
18 Rainfall increases rubbish in local rivers	July 2010	Media release
19 Locust control supported Goulburn Broken CMA supports caution on chemical use	August 2010	Media release
20 Goulburn Broken CMA targeting Weeds of National Significance willow in Broken Creek	August 2010	Media release
21 Goulburn Broken CMA initiates Flood Response	September 2010	Media release
22 Goulburn Broken CMA urges caution around waterways following flooding	September 2010	Media release
23 Flooding brings life back to our waterways	September 2010	Media release
24 Strathbogie Ranges Wetlands Tender now open	October 2010	Media release
25 Flood damage assessment in full swing	October 2010	Media release
26 Floods breathing life back into our Rivers	October 2010	Media release
27 Fire recovery weed control works commence	October 2010	Media release
28 Goulburn Broken CMA and Murray Darling Basin Authority focus on fish for Native Fish Awareness Week	November 2010	Media release
29 Surveillance is vital to effective management of Cabomba	November 2010	Media release
30 RADIO: Keith Ward interview with Warwick Long	November 2010	Radio*
31 Yorta Yorta Youth Journey across the catchment	November 2010	Media release
32 World wetlands day media tour	January 2011	Media release
33 ADVERTISEMENT: Caring for our Region	January 2011	*
34 Boom for waterbirds at Barmah	April 2011	Media release
35 Fire Recovery Weed Control Program now completed	June 2011	Media release
36 Resnagging the Goulburn River	June 2011	Media release
37 BROADCAST: Keith Ward on ABC News 24		Television*
Sustainable Irrigation		
38 Farm Water projects approved	November 2010	Media release
39 Special Roadside Areas to receive TLC	December 2010	Media release
40 Farm Water Program Round 2 2011	January 2011	Media release
41 Farm Water Program Prequalification Call	March 2011	Media release

Appendix 7: Whistleblowers Protection Policy

Goulburn Broken CMA Whistleblowers Protection Policy

Whistleblowers Protection Act 2001

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1 Purpose of these procedures

These procedures establish a system for reporting disclosures of improper conduct or detrimental action by the Goulburn Broken Catchment Management Authority or its employees. The system enables such disclosures to be made to the protected disclosure coordinator or to one of the nominated Protected disclosure officers. Disclosures may be made by employees or by members of the public.

These procedures are designed to complement normal communication channels between supervisors and employees. Employees are encouraged to continue to raise appropriate matters at any time with their supervisors. As an alternative, employees may make a disclosure of improper conduct or detrimental action under the Act in accordance with these procedures.

2 Introduction and Objectives

The *Whistleblowers Protection Act 2001* commenced operation on 1 January 2002. The main objective of the *Whistleblowers Protection Act 2001* (the Act) is to encourage and facilitate the making of disclosures of improper conduct or detrimental action by public officers and public bodies. The Act provides protection to whistleblowers who make disclosures in accordance with the Act, and establishes a system for the matters disclosed to be investigated and for rectifying action to be taken.

3 Statement of Support to Whistleblowers

The Goulburn Broken Catchment Management Authority is committed to the aims and objectives of the *Whistleblowers Protection Act 2001* (the Act). It does not tolerate improper conduct by its employees, officers or members, nor the taking of reprisals against those who come forward to disclose such conduct.

The Goulburn Broken Catchment Management Authority recognises the value of transparency and accountability in its administrative and management practices, and supports the making of disclosures that reveal corrupt conduct, conduct involving a substantial mismanagement of public resources, or conduct involving a substantial risk to public health and safety or the environment.

The Authority will take all reasonable steps to protect people who make such disclosures from any detrimental action in reprisal for making the disclosure. It will also take all necessary measures to afford natural justice to the person who is the subject of the disclosure.

4 Definitions of key terms

Three key concepts in the reporting system are improper conduct, corrupt conduct and detrimental action. Definitions of these terms are set out below.

Public Bodies include:

- All Government Departments and administrative offices; Statutory Authorities; Municipal Councils; Government appointed Boards and Committees; Government owned companies; Universities; TAFE Colleges; Public Hospitals; State funded Residential Care Services; Health Services contractors; and Correctional Services contractors.

Public Officers include:

- Members of Parliament; Councillors; Council employees; Public Servants; University employees; Police Officers; Protective Services Officers; Administrative Staff of the Chief Commissioner of Police; Teachers; and Office holders appointed by Governor in Council or a Minister.

4.1 Improper conduct

A disclosure may be made about improper conduct by a public body or public official. Improper conduct means conduct that is corrupt, a substantial mismanagement of public resources, or conduct involving substantial risk to public health or safety or to the environment. The conduct must be serious enough to constitute, if proved, a criminal offence or reasonable grounds for dismissal.

Examples

To avoid closure of a town's only industry, an environmental health officer ignores or conceals evidence of illegal dumping of waste.

An agricultural officer delays or declines imposing quarantine to allow a financially distressed farmer to sell diseased stock.

A building inspector tolerates poor practices and structural defects in the work of a leading local builder.

See 4.2 below for specific examples of corrupt conduct.

4.2 Corrupt conduct

Corrupt conduct means:

- Conduct of any person (whether or not a public official) that adversely affects the honest performance of a public officer's or public body's functions;
- The performance of a public officer's functions dishonestly or with inappropriate partiality;
- Conduct of a public officer, former public officer or a public body that amounts to a breach of public trust;
- Conduct by a public officer, former public officer or a public body that amounts to the misuse of information or material acquired in the course of the performance of their official functions; or
- A conspiracy or attempt to engage in the above conduct.

Examples

A public officer takes a bribe or receives a payment other than his or her wages or salary in exchange for the discharge of a public duty.

A public officer favours unmeritorious applications for jobs or permits by friends and relatives.

A public officer sells confidential information.

4.3 Detrimental action

The Act makes it an offence for a person to take detrimental action against a person in reprisal for a protected disclosure. Detrimental action includes:

- Action causing injury, loss or damage;
- Intimidation or harassment; and
- Discrimination, disadvantage or adverse treatment in relation to a person's employment, career, profession, trade or business, including the taking of disciplinary action.

Examples

A public body refuses a deserved promotion of a person who makes a disclosure.

A public body demotes, transfers, isolates in the workplace or changes the duties of a whistleblower due to the making of a disclosure.

A person threatens, abuses or carries out other forms of harassment directly or indirectly against the whistleblower, his or her family or friends.

A public body discriminates against the whistleblower or his or her family and associates in subsequent applications for jobs, permits or tenders.

5 The reporting system

5.1 Contact persons within the Goulburn Broken Catchment Management Authority.

Disclosures of improper conduct or detrimental action by the Goulburn Broken Catchment Management Authority or its employees, may be made to the following officers:

The protected disclosure coordinator is: Vicki Mackenzie (5820 1100).

Protected disclosure officers are: Carl Walters (5833 5360), Wayne Tennant (5820 1100), Peter Howard (5833 5343)

All correspondence, phone calls and emails from internal or external whistleblowers will be referred to the protected disclosure coordinator.

Where a person is contemplating making a disclosure and is concerned about approaching the protected disclosure coordinator or a protected disclosure officer in the workplace, he or she can call the relevant officer and request a meeting in a discreet location away from the workplace.

5.2 Alternative contact persons

A disclosure about improper conduct or detrimental action by the Goulburn Broken Catchment Management Authority or its employees may also be made directly to the Ombudsman:

The Ombudsman Victoria
Level 9, 459 Collins Street (North Tower)
Melbourne Victoria 3000
(DX 210174)
Internet: www.ombudsman.vic.gov.au
Email: ombudvic@ombudsman.vic.gov.au
Tel: 9613 6222
Toll Free: 1800 806 314

Ombudsman: Mr George Brouwer Tel: (03) 9613 6202

The following table sets out where disclosures about persons other than employees of Goulburn Broken Catchment Management Authority should be made.

Person who is the subject of the disclosure	Person/body to whom the disclosure must be made
Employee of a Public Body	That Public Body or the Ombudsman
Member of Parliament (Legislative Assembly)	Speaker of the Legislative Assembly
Member of Parliament (Legislative Council)	President of the Legislative Council
Councillor	The Ombudsman
Chief Commissioner of Police	The Ombudsman or Deputy Ombudsman
Member of the police force	The Ombudsman, Deputy Ombudsman or Chief Commissioner of Police

6 Roles and responsibilities

6.1 Employees

Employees are encouraged to report known or suspected incidences of improper conduct or detrimental action in accordance with these procedures.

All employees of the Goulburn Broken Catchment Management Authority have an important role to play in supporting those who have made a legitimate disclosure. They must refrain from any activity that is, or could be perceived to be, victimisation or harassment of a person who makes a disclosure. Furthermore, they should protect and maintain the confidentiality of a person they know or suspect to have made a disclosure.

6.2 Protected disclosure officers

Protected disclosure officers will:

- Be a contact point for general advice about the operation of the Act for any person wishing to make a disclosure about improper conduct or detrimental action;
- Make arrangements for a disclosure to be made privately and discreetly and, if necessary, away from the workplace;
- Receive any disclosure made orally or in writing (from internal and external whistleblowers);
- Commit to writing any disclosure made orally;
- Impartially assess the allegation and determine whether it is a disclosure made in accordance with Part 2 of the Act (that is, a protected disclosure);
- Take all necessary steps to ensure the identity of the whistleblower and the identity of the person who is the subject of the disclosure are kept confidential; and
- Forward all disclosures and supporting evidence to the protected disclosure coordinator.

6.3 Protected disclosure coordinator

The protected disclosure coordinator has a central clearinghouse role in the internal reporting system. He or she will:

- Receive all disclosures forwarded from the protected disclosure officers;
- Receive all phone calls, emails and letters from members of the public or employees seeking to make a disclosure;
- Impartially assess each disclosure to determine whether it is a public interest disclosure;
- Refer all public interest disclosures to the Ombudsman;
- Be responsible for carrying out, or appointing an investigator to carry out, an investigation referred to the public body by the Ombudsman;
- Be responsible for overseeing and coordinating an investigation where an investigator has been appointed;
- Appoint a welfare manager to support the whistleblower and to protect him or her from any reprisals;
- Advise the whistleblower of the progress of an investigation into the disclosed matter;
- Establish and manage a confidential filing system;
- Collate and publish statistics on disclosures made;
- Take all necessary steps to ensure the identity of the whistleblower and the identity of the person who is the subject of the disclosure are kept confidential; and
- Liaise with the Chief Executive Officer of the public body.

6.4 Investigator

The investigator will be responsible for carrying out an internal investigation into a disclosure where the Ombudsman has referred a matter to the public body. An investigator may be a person from within an organisation or a consultant engaged for that purpose.

6.5 Welfare manager

The welfare manager is responsible for looking after the general welfare of the whistleblower. The welfare manager will:

- Examine the immediate welfare and protection needs of a whistleblower who has made a disclosure and seek to foster a supportive work environment;
- Advise the whistleblower of the legislative and administrative protections available to him or her;
- Listen and respond to any concerns of harassment, intimidation or victimisation in reprisal for making disclosure; and
- Ensure the expectations of the whistleblower are realistic.

7 Confidentiality

The Goulburn Broken Catchment Management Authority will take all reasonable steps to protect the identity of the whistleblower. Maintaining confidentiality is crucial in ensuring reprisals are not made against a whistleblower.

The Act requires any person who receives information due to the handling or investigation of a protected disclosure, not to disclose that information except in certain limited circumstances. Disclosure of information in breach of section 22 of the Act constitutes an offence that is punishable by a maximum fine of 60 penalty units (\$7,328) or six months imprisonment or both.

The circumstances in which a person may disclose information obtained about a protected disclosure include:

- Where exercising the functions of the public body under the Act;
- When making a report or recommendation under the Act;
- When publishing statistics in the annual report of a public body; and
- In criminal proceedings for certain offences in the Act.

However, the Act prohibits the inclusion of particulars in any report or recommendation that is likely to lead to the identification of the whistleblower. The Act also prohibits the identification of the person who is the subject of the disclosure in any particulars included in an annual report.

The Authority will ensure all files, whether paper or electronic, are kept in a secure room and can only be accessed by the protected disclosure coordinator, protected disclosure officer, the investigator or welfare manager (in relation to welfare matters). All printed material will be kept in files that are clearly marked as a Whistleblower Protection Act matter, and warn of the criminal penalties that apply to any unauthorised divulging of information concerning a protected disclosure. All electronic files will be produced and stored on a stand-alone computer and be given password protection. Backup files will be maintained in line with the Authority's policy. All materials relevant to an investigation, such as tapes from interviews, will also be stored securely with the whistleblower files.

The Goulburn Broken Catchment Management Authority will not email documents relevant to a whistleblower matter and will ensure all phone calls and meetings are conducted in private.

8 Collating and publishing statistics

The protected disclosure coordinator will establish a secure register to record the information required to be published in the annual report, and to generally keep account of the status of whistleblower disclosures. The register will be confidential and will not record any information that may identify the whistleblower.

The register will contain the following information:

- The number and types of disclosures made to public bodies during the year;
- The number of disclosures referred to the Ombudsman for determination as to whether they are public interest disclosures;
- The number and types of disclosed matters referred to the public body by the Ombudsman for investigation;
- The number and types of disclosures referred by the public body to the Ombudsman for investigation;
- The number and types of investigations taken over from the public body by the Ombudsman;
- The number of requests made by a whistleblower to the Ombudsman to take over an investigation by the public body;
- The number and types of disclosed matters that the public body has declined to investigate;
- The number and types of disclosed matters that were substantiated upon investigation and the action taken on completion of the investigation; and
- Any recommendations made by the Ombudsman that relate to the public body.

9 Receiving and assessing disclosures

9.1 Has the disclosure been made in accordance with Part 2 of the Act?

Where a disclosure has been received by the protected disclosure officer or by the protected disclosure coordinator, he or she will assess whether the disclosure has been made in accordance with Part 2 of the Act and is, therefore, a protected disclosure.

9.1.1 Has the disclosure been made to the appropriate person?

For the disclosure to be responded to by the Goulburn Broken Catchment Management Authority, it must concern an employee, member or officer of the Goulburn Broken Catchment Management Authority. If the disclosure concerns an employee, officer or member of another public body, the person who has made the disclosure must be advised of the correct person or body to whom the disclosure should be directed. (See the table in 5.2). If the disclosure has been made anonymously, it should be referred to the Ombudsman.

9.1.2 Does the disclosure contain the essential elements of a protected disclosure?

To be a protected disclosure, a disclosure must satisfy the following criteria:

- Did a natural person (that is, an individual person rather than a corporation) make the disclosure?
- Does the disclosure relate to conduct of a public body or public officer acting in their official capacity?
- Is the alleged conduct either improper conduct or detrimental action taken against a person in reprisal for making a protected disclosure?
- Does the person making a disclosure have reasonable grounds for believing the alleged conduct has occurred?

Where a disclosure is assessed to be a protected disclosure, it is referred to the Protected Disclosure Coordinator. The Protected Disclosure Coordinator will determine whether the disclosure is a public interest disclosure.

Where a disclosure is assessed not to be a protected disclosure, the matter does not need to be dealt with under the Act. The protected disclosure officer will decide how the matter should be responded to in consultation with the protected disclosure coordinator.

9.2 Is the disclosure a public interest disclosure?

Where the protected disclosure officer or coordinator has received a disclosure that has been assessed to be a protected disclosure, the protected disclosure coordinator will determine whether the disclosure amounts to a public interest disclosure. This assessment will be made within 45 days of the receipt of the disclosure.

In reaching a conclusion as to whether a protected disclosure is a public interest disclosure, the protected disclosure coordinator will consider whether the disclosure **shows, or tends to show**, that the public officer to whom the disclosure relates:

- Has engaged, is engaging or proposes to engage in improper conduct in his or her capacity as a public officer; or
- Has taken, is taking or proposes to take detrimental action in reprisal for the making of the protected disclosure.

Where the protected disclosure coordinator concludes that the disclosure amounts to a public interest disclosure, he or she will:

- 1 Notify the person who made the disclosure of that conclusion; and
- 2 Refer the disclosure to the Ombudsman for formal determination as to whether it is indeed a public interest disclosure.

Where the protected disclosure coordinator concludes that the disclosure is not a public interest disclosure, he or she will:

- 1 Notify the person who made the disclosure of that conclusion; and
- 2 Advise that person that he or she may request the public body to refer the disclosure to the Ombudsman for a formal determination as to whether the disclosure is a public interest disclosure, and that this request must be made within 28 days of the notification.

In either case, the protected disclosure coordinator will make the notification and the referral within 14 days of the conclusion being reached by the public body. Notification to the whistleblower is not necessary where the disclosure has been made anonymously.

10 Investigations

10.1 Introduction

Where the Ombudsman refers a protected disclosure to the Goulburn Broken Catchment Management Authority for investigation, the protected disclosure coordinator will appoint an investigator to carry out the investigation.

The objectives of an investigation will be:

- To collate information relating to the allegation as quickly as possible. This may involve taking steps to protect or preserve documents, materials and equipment;
- To consider the information collected and to draw conclusions objectively and impartially;
- To maintain procedural fairness in the treatment of witnesses and the person who is the subject of the disclosure; and
- To make recommendations arising from the conclusions drawn concerning remedial or other appropriate action.

10.2 Terms of reference

Before commencing an investigation, the protected disclosure coordinator will draw up terms of reference and obtain authorisation for those terms from the Chief Executive Officer. The terms of reference will set a date by which the investigation report is to be concluded, and will describe the resources available to the investigator to complete the investigation within the time set. The protected disclosure coordinator may approve, if reasonable, an extension of time requested by the investigator. The terms of reference will require the investigator to make regular reports to the protected disclosure coordinator who, in turn, is to keep the Ombudsman informed of general progress.

10.3 Investigation plan

The investigator will prepare an investigation plan for approval by the protected disclosure coordinator. The plan will list the issues to be substantiated and describe the avenue of inquiry. It will address the following issues:

- What is being alleged?
- What are the possible findings or offences?
- What are the facts in issue?
- How is the inquiry to be conducted?
- What resources are required?

At the commencement of the investigation, the whistleblower should be:

- Notified by the investigator that he or she has been appointed to conduct the investigation;
- Asked to clarify any matters; and
- Provide any additional material he or she might have.

The investigator will be sensitive to the whistleblower's possible fear of reprisals and will be aware of the statutory protections provided to the whistleblower.

10.4 Natural Justice

The principles of natural justice will be followed in any investigation of a public interest disclosure. The principles of natural justice concern procedural fairness and ensure a fair decision is reached by an objective decision maker. Maintaining procedural fairness protects the rights of individuals and enhances public confidence in the process.

The Goulburn Broken Catchment Management Authority will have regard to the following issues in ensuring procedural fairness:

- The person who is the subject of the disclosure is entitled to know the allegations made against him or her and must be given the right to respond. (This does not mean the person must be advised of the allegation as soon as the disclosure is received or the investigation has commenced);
- If the investigator is contemplating making a report adverse to the interests of any person, that person should be given the opportunity to put forward further material that may influence the outcome of the report and that person's defence should be fairly set out in the report;
- All relevant parties to a matter should be heard and all submissions should be considered;
- A decision should not be made until all reasonable inquiries have been made;
- The investigator or any decision maker should not have a personal or direct interest in the matter being investigated;
- All proceedings must be carried out fairly and without bias. Care should be taken to exclude perceived bias from the process; and
- The investigator must be impartial in assessing the credibility of the whistleblowers and any witnesses. Where appropriate, conclusions as to credibility should be included in the investigation report.

10.5 Conduct of the investigation

The investigator will make contemporaneous notes of all discussions and phone calls, and all interviews with witnesses will be taped. All information gathered in an investigation will be stored securely. Interviews will be conducted in private and the investigator will take all reasonable steps to protect the identity of the whistleblower.

Where disclosure of the identity of the whistleblower cannot be avoided, due to the nature of the allegations, the investigator will warn the whistleblower and his or her welfare manager of this probability.

It is in the discretion of the investigator to allow any witness to have legal or other representation or support during an interview. If a witness has a special need for legal representation or support, permission should be granted.

10.6 Referral of an investigation to the Ombudsman

The protected disclosure coordinator will make a decision regarding the referral of an investigation to the Ombudsman where, on the advice of the investigator:

- The investigation is being obstructed by, for example, the non-cooperation of key witnesses; or
- The investigation has revealed conduct that may constitute a criminal offence.

10.7 Reporting requirements

The protected disclosure coordinator will ensure the whistleblower is kept regularly informed concerning the handling of a protected disclosure and an investigation.

The protected disclosure coordinator will report to the Ombudsman about the progress of an investigation.

Where the Ombudsman or the whistleblower requests information about the progress of an investigation, that information will be provided within 28 days of the date of the request.

11 Action Taken After An Investigation

11.1 Investigator's final report

At the conclusion of the investigation, the investigator will submit a written report of his or her findings to the protected disclosure coordinator. The report will contain:

- The allegation/s;
- An account of all relevant information received and, if the investigator has rejected evidence as being unreliable, the reasons for this opinion being formed;
- The conclusions reached and the basis for them; and
- Any recommendations arising from the conclusions.

Where the investigator has found that the conduct disclosed by the whistleblower has occurred, recommendations made by the investigator will include:

- The steps that need to be taken by the Goulburn Broken Catchment Management Authority to prevent the conduct from continuing or occurring in the future; and
- Any action that should be taken by the Authority to remedy any harm or loss arising from the conduct. This action may include bringing disciplinary proceedings against the person responsible for the conduct, and referring the matter to an appropriate authority for further consideration.

The report will be accompanied by:

- The transcript or other record of any oral evidence taken, including tape recordings; and
- All documents, statements or other exhibits received by the officer and accepted as evidence during the course of the investigation.

Where the investigator's report is to include an adverse comment against any person, that person will be given the opportunity to respond and his or her defence will be fairly included in the report.

The report will not disclose particulars likely to lead to the identification of the whistleblower.

11. Action to be taken

If the protected disclosure coordinator is satisfied that the investigation has found that the disclosed conduct has occurred, he or she will recommend to the Chief Executive Officer the action that must be taken to prevent the conduct from continuing or occurring in the future. The protected disclosure coordinator may also recommend that action be taken to remedy any harm or loss arising from the conduct.

The protected disclosure coordinator will provide a written report to the responsible Ministers, the Ombudsman and the whistleblower setting out the findings of the investigation and any remedial steps taken.

Where the investigation concludes that the disclosed conduct did not occur, the protected disclosure coordinator will report these findings to the Ombudsman and to the whistleblower.

12 Managing the Welfare of the Whistleblower

12.1 Commitment to protecting whistleblowers

The Goulburn Broken Catchment Management Authority is committed to the protection of genuine whistleblowers against detrimental action taken in reprisal for the making of protected disclosures.

The protected disclosure coordinator is responsible for ensuring whistleblowers are protected from direct and indirect detrimental action, and that the culture of the workplace is supportive of protected disclosures being made.

The protected disclosure coordinator will appoint a welfare manager to all whistleblowers who have made a protected disclosure. The welfare manager will:

- Examine the immediate welfare and protection needs of a whistleblower who has made a disclosure and, where the whistleblower is an employee, seek to foster a supportive work environment;
- Advise the whistleblower of the legislative and administrative protections available to him or her;
- Listen and respond to any concerns of harassment, intimidation or victimisation in reprisal for making disclosure;
- Keep a contemporaneous record of all aspects of the case management of the whistleblower including all contact and follow-up action; and
- Ensure the expectations of the whistleblower are realistic.

All employees will be advised that it is an offence for a person to take detrimental action in reprisal for a protected disclosure. The maximum penalty is a fine of 240 penalty units (\$29,313) or two years imprisonment or both. The taking of detrimental action in breach of this provision can also be grounds for making a disclosure under the Act and can result in an investigation.

Detrimental action includes:

- Causing injury, loss or damage;
- Intimidation or harassment; and
- Discrimination, disadvantage or adverse treatment in relation to a person's employment, career, profession, trade or business (including the taking of disciplinary action).

12.2 Keeping the whistleblower informed

The protected disclosure coordinator will ensure the whistleblower is kept informed of action taken in relation to his or her disclosure, and the time frames that apply. The whistleblower will be informed of the objectives of an investigation, the findings of an investigation, and the steps taken by the Goulburn Broken Catchment Management Authority to address any improper conduct that has been found to have occurred. The whistleblower will be given reasons for decisions made by the Goulburn Broken Catchment Management Authority in relation to a protected disclosure. All communication with the whistleblower will be in plain English.

12.3 Occurrence of detrimental action

If a whistleblower reports an incident of harassment, discrimination or adverse treatment that would amount to detrimental action taken in reprisal for the making of the disclosure, the welfare manager will:

- Record details of the incident;
- Advise the whistleblower of his or her rights under the Act; and
- Advise the protected disclosure coordinator or chief executive officer of the detrimental action.

The taking of detrimental action in reprisal for the making of a disclosure can be an offence against the Act as well as grounds for making a further disclosure. Where such detrimental action is reported, the protected disclosure coordinator will assess the report as a new disclosure under the Act. Where the protected disclosure coordinator is satisfied that the disclosure is a public interest disclosure, he or she will refer it to the Ombudsman. If the Ombudsman subsequently determines the matter to be a public interest disclosure, the Ombudsman may investigate the matter or refer it to another body for investigation as outlined in the Act.

12.4 Whistleblowers implicated in improper conduct

Where a person who makes a disclosure is implicated in misconduct, the Goulburn Broken Catchment Management Authority will handle the disclosure and protect the whistleblower from reprisals in accordance with the Act, the Ombudsman's guidelines and these procedures. The Authority acknowledges that the act of whistleblowing should not shield whistleblowers from the reasonable consequences flowing from any involvement in improper conduct.

Section 17 of the Act specifically provides that a person's liability for his or her own conduct is not affected by the person's disclosure of that conduct under the Act. However, in some circumstances, an admission may be a mitigating factor when considering disciplinary or other action.

The Chief Executive Officer will make the final decision on the advice of the protected disclosure coordinator as to whether disciplinary or other action will be taken against a whistleblower. Where disciplinary or other action relates to conduct that is the subject of the whistleblower's disclosure, the disciplinary or other action will only be taken after the disclosed matter has been appropriately dealt with.

In all cases where disciplinary or other action is being contemplated, the Chief Executive Officer must be satisfied that it has been clearly demonstrated that:

- The intention to proceed with disciplinary action is not causally connected to the making of the disclosure (as opposed to the content of the disclosure or other available information);
- There are good and sufficient grounds that would fully justify action against any non-whistleblower in the same circumstances; and
- There are good and sufficient grounds that justify exercising any discretion to institute disciplinary or other action.

The protected disclosure coordinator will thoroughly document the process including recording the reasons why the disciplinary or other action is being taken, and the reasons why the action is not in retribution for the making of the disclosure. The protected disclosure coordinator will clearly advise the whistleblower of the proposed action to be taken, and of any mitigating factors that have been taken into account.

13 Management of the Person Against Whom a Disclosure Has Been Made

The Goulburn Broken Catchment Management Authority recognises that employees against whom disclosures are made must also be supported during the handling and investigation of disclosures.

The Authority will take all reasonable steps to ensure the confidentiality of the person who is the subject of the disclosure during the assessment and investigation process. Where investigations do not substantiate disclosures, the fact that the investigation has been carried out, the results of the investigation, and the identity of the person who is the subject of the disclosure will remain confidential.

The protected disclosure coordinator will ensure the person who is the subject of any disclosure investigated by or on behalf of a public body is:

- Informed as to the substance of the allegations;
- Given the opportunity to answer the allegations before a final decision is made;
- Informed as to the substance of any adverse comment that may be included in any report arising from the investigation; and has
- His or her defence set out fairly in any report.

Where the allegations in a disclosure have been investigated, and the person who is the subject of the disclosure is aware of the allegations or the fact of the investigation, the protected disclosure coordinator will formally advise the person who is the subject of the disclosure of the outcome of the investigation.

The Goulburn Broken Catchment Management Authority will give its full support to a person who is the subject of a disclosure where the allegations contained in a disclosure are clearly wrong or unsubstantiated. If the matter has been publicly disclosed, the Chief Executive Officer of the Authority will consider any request by that person to issue a statement of support setting out that the allegations were clearly wrong or unsubstantiated.

14 Criminal Offences

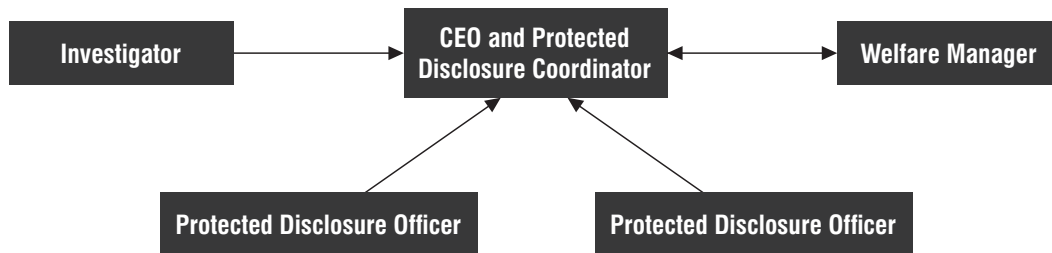
The Goulburn Broken Catchment Management Authority will ensure officers appointed to handle protected disclosures and all other employees are aware of the following offences created by the Act:

- 1 It is an offence for a person to take detrimental action against a person in reprisal for a protected disclosure being made. The Act provides a maximum penalty of a fine of 240 penalty units (\$29,313) or two years imprisonment or both.
- 2 It is an offence for a person to divulge information obtained as a result of the handling or investigation of a protected disclosure without legislative authority. The Act provides a maximum penalty of 60 penalty units (\$7,328) or six months imprisonment or both.
- 3 It is an offence for a person to obstruct the Ombudsman in performing his/her responsibilities under the Act. The Act provides a maximum penalty of 240 penalty units (\$29,313) or two years imprisonment or both.
- 4 It is an offence for a person to knowingly provide false information under the Act with the intention that it be acted on as a disclosed matter. The Act provides a maximum penalty of 240 penalty units (\$29,313) or two years imprisonment or both.

15 Review

These procedures will be reviewed annually to ensure they meet the objectives of the Act and accord with the Ombudsman's guidelines.

Annexure A – Reporting structure for the Goulburn Broken CMA



Annexure B: Model register

The register below records information about disclosures made to the Goulburn Broken Catchment Management Authority that have been determined to be protected disclosures.

	File A	File B	File C	File D	File E
Date Disclosure Received					
Type of Disclosure					
Is Disclosure a Public Interest Disclosure					
Date Above Determination Made					
Date Whistleblower (WB) Informed of Determination					
Date Disclosure Referred to the Ombudsman					
Determination Made by Ombudsman					
Was The Investigation Referred Back to The Ombudsman					
Did The Ombudsman Take Over The Investigation					
Did the WB * Request The Ombudsman To Take Over The Investigation					
Findings Of The Public Body					
Recommendations Made By The Ombudsman					
Date Reporting Requirements Satisfied.					

*WB refers to the Whistleblower

Note: The value of one penalty unit is \$122.14 as at 1 July 2011.

Appendix 8: Disclosure index

The Annual Report of the Goulburn Broken CMA is prepared in accordance with all relevant Victorian legislation. This index facilitates identification of the Authority compliance with statutory disclosure requirements.

Information relevant to the headings listed in Financial Reporting Direction 22B of the *Financial Management Act 1994* is held at the Authority's office and is available on request, subject to the *Freedom of Information Act 1982*.

Legislation	Disclosure required	page
Ministerial directions		
Report of operations		
Financial reporting directions affecting the financial statements		
03A	Accounting for Dividends	n.a
07A	Early Adoption of Authoritative Accounting Pronouncements	67
8B	Consistency of Budget and Department Reporting	n.a
09A	Department Disclosure of Administered Assets and Liabilities by Activity	n.a
10	Disclosure Index	129
11	Disclosure of Ex-gratia Payments	n.a
13	Disclosure of Parliamentary Appropriations	n.a
17A	Long Service Leave Wage Inflation and Discount Rates	75
19	Private Provision of Public Infrastructure	n.a
20A	Accounting for State Motor Vehicle Lease Arrangements prior 1 February 2004	n.a
21A	Responsible Person and Executive Officer Disclosures in the Financial Report	79
100	Financial Reporting Directions – Framework	64
101	First-time Adoption	n.a
102	Inventories	n.a
103D	Non-Current Physical Assets	74
104	Foreign Currency	n.a
105A	Borrowing Costs	65
106	Impairment of Assets	65
107	Investment Properties	n.a
108	Classification of Entities as For-Profit	64
109	Intangible Assets	n.a
110	Cash Flow Statements	63
112C	Defined Benefit Superannuation Obligations	76
113	Investments in Subsidiaries, Jointly Controlled Entities and Associates	n.a
114A	Financial Instruments – General Government Entities and Public Non Financial Corporations	67,81
115	Non-Current Physical Assets – First-time Adoption	n.a
116	Financial Instruments-PFCs	n.a
117	Contributions of Existing Non-Financial Assets to Third Parties	n.a
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5D 4.5.5	Risk management compliance	41
5D 4.2(g)	General information requirements	46
5D 4.2(i)	Sign-off requirements	9,41,60
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12A	Disclosure of Major Contracts	57
14	Disclosures in Annual Reports by Public Sector Superannuation Schemes	n.a
15B	Executive Officer Disclosures in the Report of Operations by Departments	n.a
	Standard Disclosures in the Report of Operations	
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Glossary of terms and abbreviations

Terms

Biolink: areas identified for targeted action to increase ecological function and connectivity, improving the potential of plants and animals to disperse, recolonise, evolve and adapt naturally.

Carryover was introduced in northern Victoria in early 2007 as an emergency drought measure to allow entitlement holders to carry over some unused water allocation to use in the following season.

Farm Water Program: a Goulburn Broken-led consortium across the Goulburn Murray Irrigation Water Service Area oversees this irrigation efficiency initiative. In 2010-11 it was funded by the Commonwealth On-Farm Irrigation Efficiency Program and the Northern Victoria Irrigation Renewal Project.

Foodbowl modernisation plan was a proposal put to the State Government of Victoria by a consortium of community leaders in the Goulburn Murray Irrigation District to share the water savings created as a result of upgrading irrigation infrastructure.

Minimum (river) flow: a minimum level of flow that the water authority needs to maintain in the river at a particular location, or a trigger below which water cannot be harvested from the river. Minimum flows are usually specified in water authority bulk entitlements or in environmental entitlements. (See also 'qualification of rights' below.)

Modernised whole farm plan takes account of the changed regional channel delivery infrastructure as a result of modernisation.

Northern Victoria Irrigation Renewal Project is a state owned entity established to plan, design and deliver the Northern Victoria Irrigation Renewal Project: the \$2 billion program of works to modernise and upgrade ageing infrastructure.

On-Farm Irrigation Efficiency Program is a Commonwealth Program aimed at assisting irrigators in the Lachlan and southern connected system of the Murray-Darling Basin to modernise their on-farm irrigation infrastructure while returning water savings to the environment. In Financial Statements of this Annual Report, On-Farm Irrigation Efficiency refers to both the Commonwealth funding program and the NVIRP contribution and is synonymous with the Farm Water Program.

Qualification of rights: if on a seasonal basis there is insufficient water in a water supply system to meet critical water needs, a water shortage may be declared by the Minister for Water and rights to water may be qualified temporarily. A qualification of rights changes a legal entitlement. Rights that may be qualified include licenses, water shares, bulk and environmental entitlements. Private rights may be suspended, reduced, increased or otherwise altered after a water shortage has been declared.

Regional Catchment Strategy is a blueprint for integrated natural resource management across a geographic area.

Registered Aboriginal Parties are the voice of Aboriginal people in managing and protecting Aboriginal cultural heritage under the *Victorian Aboriginal Heritage Act 2006*. The Act recognises Aboriginal people as the primary guardians, keepers and knowledge holders of Aboriginal cultural heritage.

Resource condition target relates to the condition of the resource and can be measured over the short-term or the long-term depending on ease of measurement.

Salt registers of salt debits and credits are required to be maintained by the State under the Federal *Water Act 2007*. The delayed impacts of dryland salinity are accounted for in the B Registers. The Goulburn Broken CMA has set up the framework for the B Register and is establishing a process with DPI and the Murray-Darling Basin Authority for entering data to complement data already in the A Register under the salinity and drainage strategy.

Abbreviations

AASB	Australian Accounting Standards Board
CaLP	Catchment and Land Protection Act 1994
BGIC	Broken Goulburn Implementation Committee
CEO	Chief Executive Officer
CMA	catchment management authority
CMN	conservation management network
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DPI	Department of Primary Industries
DSE	Department of Sustainability and Environment
EC	electrical conductivity unit
GB RRHS	Goulburn Broken Regional River Health Strategy
G-MW	Goulburn-Murray Water
GST	Goods and Services Tax
ha	hectare
IT	Information Technology
km	kilometre
KPI	key performance indicator
LWMP	Land and Water Management Plan
ML	megalitre
MLC	Member of the Legislative Council
MoU	memorandum of understanding
no.	number
NRM	natural resource management
NRIP	Natural Resources Investment Program
NVIRP	Northern Victoria Irrigation Renewal Project
RSMP	Regional Salinity Management Plan
SIR	Shepparton Irrigation Region
SIRIC	Shepparton Irrigation Region Implementation Committee
SIRCIS	Shepparton Irrigation Region Catchment Implementation Strategy
VEWH	Victorian Environmental Water Holder
YYNAC	Yorta Yorta Nation Aboriginal Corporation

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Recognising a major NRM contribution

John Dainton



John Dainton has been a remarkable, inspiring and possibly unparalleled community leader in the dairy industry, the water sector and natural resource management for more than 40 years.

John was born in 1938 and grew up on a wheat and sheep farm near Shepparton, becoming an irrigation dairy farmer.

His humble, diligent and no-nonsense style enables him to create unique partnerships between community groups, government agencies, and industry bodies.

He was instrumental in pioneering the community-led integrated catchment management approach in the late 1980s through his role as inaugural chair of the Salinity Pilot Program Advisory Council. He chaired subsequent natural resource management bodies, including the Goulburn Broken CMA from its inception in 1997 until 2002.

Through John's leadership, government agencies and eminent researchers turned to the Goulburn Broken regional community to find approaches for leading Australia in addressing water quality

and biodiversity problems and in exploring new ways of thinking, such as 'ecosystem services' and 'catchment resilience'.

John was also chair of Goulburn-Murray Water (2001-2004) a director of Ibis Milk Products, chair of Bonlac Foods (1996-1999), president of the Victorian Dairy Farmers Association Shepparton Branch (1974-1976) and secretary of the No. 9 District Council of the United Dairyfarmers of Victoria (1976-1984).

John's influence on regional, state and national leaders is hard to over-estimate. The legacy of his emphasis on community responsibility and partnerships has helped the Goulburn Broken region to be one of the most vibrant and resilient regions in Australia.

John lives in Shepparton with his wife of 51 years, Pat, and he remains an active contributor. He has led Shepparton's University of the Third Age natural resource management program since 2006 and he also chaired the Department of Sustainability and Environment's Northern Victorian Sustainable Water Strategy Environment and Allocation Working Group.

Thank you John and Pat for your ongoing contribution.

Staff list 2010-11

Apted, Rhiannon	Colliver, Max	Keogh, Vanessa	Norman, Chris	Tennant, Wayne
Atkinson, Neville	Cotter, Mark	Kosch, Sue	O'Dwyer, Tom	Tierney, Guy
Baldi, Fleur	Damen, Casey	Kubeil, Tony	O'Kane, Bill	Turner, Mark
Barlow, Tim	Dimit, Mary	Lawler, David	Oswald, Barry	Walters, Carl
Begley, Jim	Doherty, Cindy	Ludlow, Deanne	Pendergast, Kate	Warburton, Richard
Brennan, Geoff	Earl, Geoff	Mackenzie, Vicki	Roszak, Kirsten	Ward, Keith
Brisbane, Karen	Gantcheff, Bianca	McClaren, Amanda	Senini, Belinda	Ward, Sam
Brunt, Kate	Gibney, Stan	McFarlane, Kerry	Sexton, Charlie	Warner, Katie
Burnett, Chris	Glassford, Christine	McFarlane, Megan	Siekman, Darelle	Williams, Sue
Camera, Rosalba	Haddow, Melanie	Mentiplay-Smith, Janice	Smith, Andrea	Wilson, Corey
Casanelia, Simon	Head, Jason	Miles, Carla	Spokes, Rachael	Wilson, Jenny
Castles, Jim	Howard, Peter	Moreno, Samantha	Squires, Annie	Wilson, Steve
Chalmers, Keith	Judd, Dean	Morgan, Travis	Sutherland, Gaye	Wood, Jo
Collins Stephen	Judd, Meegan	Nicholson, Chris	Tate, Collin	



PARTNERS IN CATCHMENT MANAGEMENT

The health of the Catchment relies on many partner organisations and individuals. In fact, there are so many partner organisations of the Goulburn Broken Catchment Management Authority that we have found it challenging to capture them all. Any partner logo not appearing above does not undervalue their contribution to the Catchment.

CONTACTS AND OFFICE LOCATIONS OF GOULBURN BROKEN CATCHMENT MANAGEMENT AUTHORITY

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