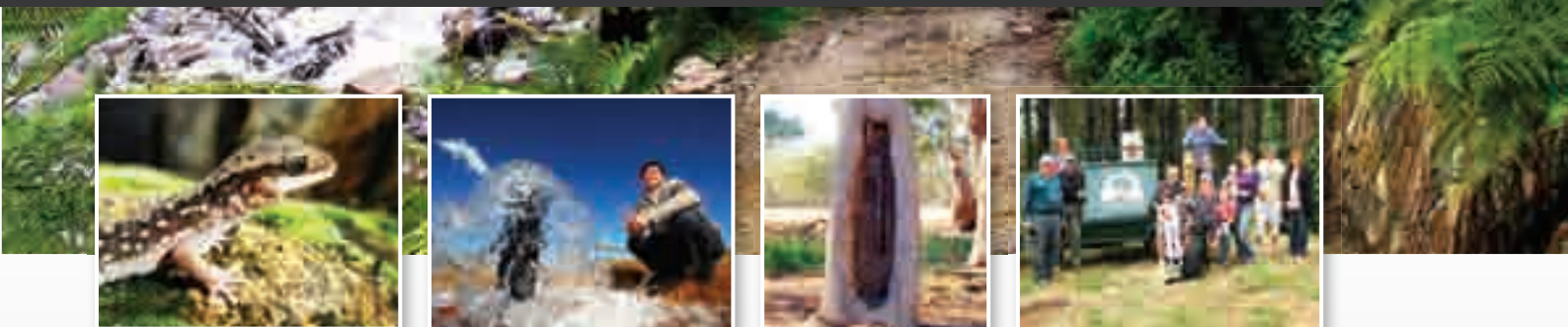




ANNUAL REPORT 2009-10

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 (>110%)
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 'Understanding progress and ratings' at the start of 'The Environment - details of annual performance and long-term progress' section.

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 as per the Goulburn Broken 2009-10 to 2013-14 Corporate Plan. The Corporate Plan can be accessed online at www.gbcma.vic.gov.au.

The Goulburn Broken Catchment Management Authority (Goulburn Broken 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."

What's new in this report

- The report has few photographs, is not coloured and most case studies have been moved to www.gbcma.vic.gov.au. This design and print conforms with Department of Treasury and Finance's directions aimed at developing consistency, minimising costs and environmental impact across government agencies.
- Climate change impacts are highlighted within each investment area under The Environment instead of as a stand-alone section.
- Progress against headline themes is summarised in the compliance sections. This conforms with requirements of the Department of Sustainability and Environment's Victorian Natural Resources Management Reporting guidelines aimed at improving "...the quality and consistency of regional reporting" and "to enable understanding of the impacts of the Government's policy and investment in land, water and biodiversity."

Feedback on this report is encouraged to help improve future annual reports. Please provide comments by 31 December 2010 to guarantee consideration. A feedback form to help direct comments is available at www.gbcma.vic.gov.au.

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Front cover:

Main photo

- Steavenson Falls at Marysville, Regeneration 16 months after 2009 Black Saturday bushfires (case study page 22). Photo: Peter Cobb Department of Sustainability and Environment.

Inset photos (left to right)

- The Threatened Grassy Woodlands project (page 113) benefits many species, including the Stone Gecko. Photo: Dr Damien Michael, Australian National University.
- Hamish Crawford enjoys his new groundwater pump at Harston (page 6). Photo: Ray Sizer, Shepparton News.
- Protection of scar trees such as this one in the Boosey Creek are an important component of the cultural heritage support program (page 19). Photo: Gaye Sutherland Goulburn Broken CMA.
- Kinglake Landcare Group's trailer was replaced by the Goulburn Broken CMA after the previous trailer was destroyed in 2009 Black Saturday bushfires (case study listed on page 13). Photo: Kinglake Landcare Network.

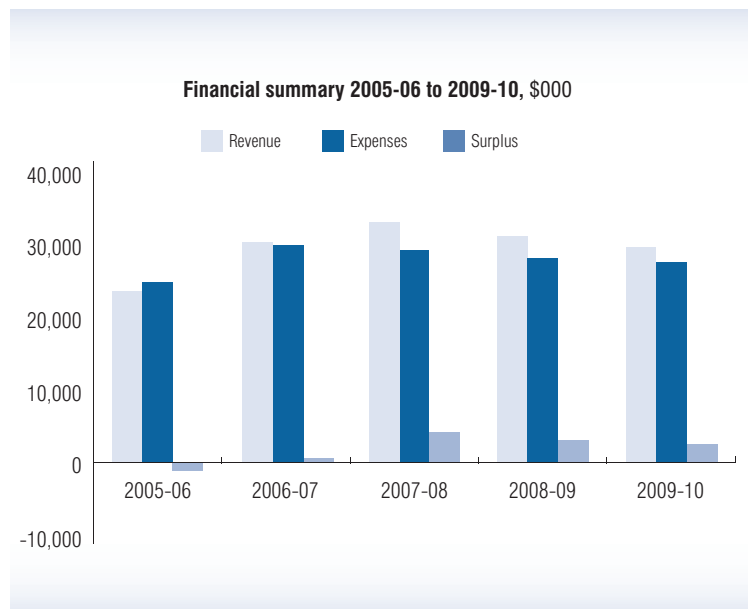
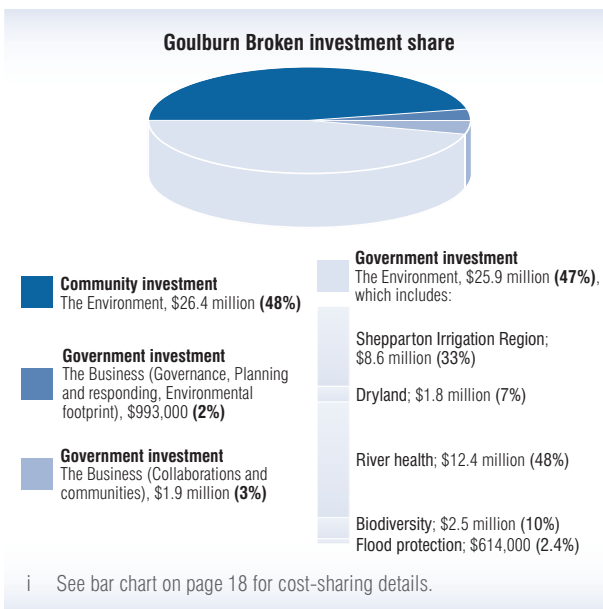
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Overview

Operational highlights

	Details page
Drought and bushfire response and environmental water	
<ul style="list-style-type: none"> • Extreme dry conditions continued for a 13th year, impacting on all areas of Goulburn Broken CMA's operations. 	8,10
<ul style="list-style-type: none"> • The community is recovering from the disastrous February 2009 Black Saturday bushfires with excellent levels of success, thanks largely to: <ul style="list-style-type: none"> - Fire Recovery Program (funded by the Australian Government's Caring for Our Country) - Fire Recovery Employment Program (funded through Goulburn Broken CMA's sale of part of the water quality reserve (environmental water), with support from the State Government, the Victorian Bushfire Reconstruction and Recovery Authority, and Caring for Our Country) - Upper Goulburn Landcare Network continuing to play a huge role in coordinating 790 volunteers from 15 diverse organisations. • In the fire-affected area, 800 hectares of critical habitat were protected, 15 threatened species had habitat created or were moved, 400 hectares of weeds were controlled, and 600 hectares of remnant vegetation were fenced. 	8,10,21,22
<ul style="list-style-type: none"> • Aquatic ecosystems continue to be under significant stress because of continuing low stream flows and fires, and in response: <ul style="list-style-type: none"> - environmental water was delivered to wetlands (2,832 megalitres) and streams (1,451 megalitres) - native fish were moved and reintroduced to streams where suitable conditions were present - real-time water quality monitoring was introduced. 	105,106,109
<ul style="list-style-type: none"> • The Goulburn Broken CMA received in-principle approval of \$25.8 million of first round funding under the Australian Government's On-Farm Irrigation Efficiency Program. The Goulburn Broken CMA will lead a consortium of partners to deliver the Program: <ul style="list-style-type: none"> - significant oversubscription by landholders (170 eligible expressions of intent totalling more than \$40 million) in the improved flood irrigation component of the consortium's Farm Water Program will result in the transfer of about 5,100 megalitres of water to the Commonwealth Government. 	25
<ul style="list-style-type: none"> • The 500th reuse system was installed in the Shepparton Irrigation Region (76 were installed during 2009-10). 	6,10,15
Works and incentives	
<ul style="list-style-type: none"> • 892 incentives were provided for landholders to fence and revegetate waterways, to build stock containment areas, for whole farm plans, to improve irrigation and to install water reuse systems. 	19
<ul style="list-style-type: none"> • Substantial levels of native vegetation works were achieved, although levels were significantly lower than for each of the previous three years because the Drought Employment Program has finished (1,347 hectares of remnant vegetation were protected, down 63 per cent). 	14,113
<ul style="list-style-type: none"> • Major flood studies were completed for the Shire of Mitchell's Kilmore and Seymour townships. 	119
<ul style="list-style-type: none"> • Pest management achieved high levels of voluntary compliance. 	122
<ul style="list-style-type: none"> • 259 whole farm plans were completed; 85 per cent of the Shepparton Irrigation Region is now covered by whole farm plans. 	24,95,99,126
Funding	



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, Gavin Jennings MLC, who was the responsible Minister during the reporting period.

In addition, the Goulburn Broken CMA is empowered as an Authority under the *Water Act 1989*. Under this Act, the Goulburn Broken CMA is accountable for waterway management in its region to The Honourable Tim Holding, Minister for Water.

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 received \$29.9 million in 2009-10 from the Victorian and Australian Governments and from regional sources. During the year, 60 people 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 landscape supporting vibrant communities.

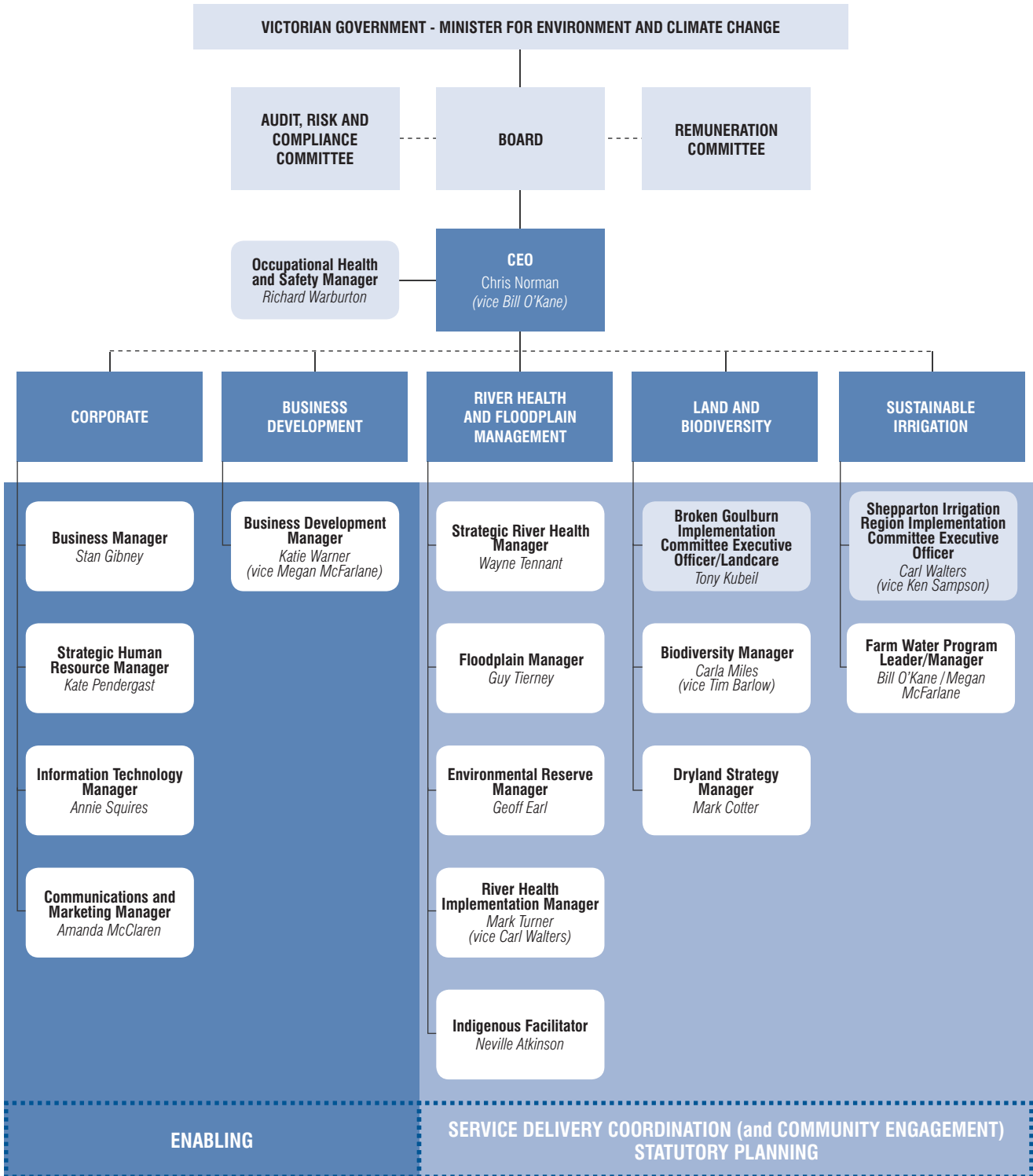
Our purpose

Through its leadership and partnerships the Goulburn Broken CMA will improve the resilience of the Catchment's people, land, biodiversity and water resource 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 of the city 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 problems

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. Severely reduced milk prices since late 2008 are likely to result in a more rapid exit of farmers and this will be exacerbated if conditions remain dry. 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 Catchmentⁱ



(c) The State of Victoria Goulburn Broken Catchment Management Authority 2010

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.

i Maps of River health work sites and whole farm plans are on pages 104 and 126.

Key events

2009

- July** New Board is inducted and meets for the first time
- Landcare Corporate Partnership project begins in the Goulburn Broken Catchment: a pilot for the State Landcare Team's Volunteer Recruitment Initiative; Karen Brisbane is appointed as the facilitator (page 19)
- August** Member for Northern Victoria and Parliamentary Secretary for Rural and Regional Development, Kaye Darveniza, launches the 300th incentive payment for groundwater pumping and the 500th incentive payment for drainage reuse at Harston (case study 9 listed on page 13)
- September** Goulburn Broken CMA delegation attends International River Symposium in Brisbane
- October** Ken Sampson, Shepparton Irrigation Region Implementation Committee Executive Officer and natural resource management icon, passes away suddenly (see inside back cover)
- CEO Bill O'Kane represents Australia in China as part of the Australia China Environment Development Partnership to foster closer relationships on water related issues (case study 10 listed on page 13)
- November** Lake Mokoan formally ceases to be a water storage via amendment of bulk water entitlements
- Karen Brisbane, Landcare Corporate Partnership Facilitator, represents Victoria in United States of America on a 26-day Landcare Fellowship
- December** Minister for Water, Tim Holding, releases Northern Region Sustainable Water Strategy after 18 months of consultation (page 9)
- Minister for Environment and Climate Change, Gavin Jennings MLC, announces a major policy initiative called *Securing Our Natural Future*, a white paper for land and biodiversity at a time of climate change; a significant change proposed in the white paper is the merger of the Goulburn Broken, North Central and North East CMAs to become the Northern Rivers Natural Resources and Catchment Authority on 1 July 2011 (page 9)
- Chris Norman starts as CEO of Goulburn Broken CMA
- Goulburn Broken CMA staff conduct workshops and field tours for 10 delegates from Shanxi Province Water Resources as part of an Australia-China AusAID partnership to establish an institute of water excellence in Shanxi, China (case study 10 listed on page 13)

2010

- February** Goulburn Broken CMA Board approves Project Advisory Committee Charter for the new Farm Water Program and appoints their CEO Chris Norman as the inaugural Chair (case study page 25)
- Knocking down of Lake Mokoan's wall signals the start of works to revert the Lake from a water storage to a wetland
- March** Federal Minister for Climate Change, Energy Efficiency and Water, Senator Penny Wong, announces that the Goulburn Broken CMA will receive \$25.8 million as part of the first round of the On-Farm Irrigation Efficiency Program (case study page 25)
- Goulburn Broken CMA hosts Chinese delegations from the Yellow River, the Ministry of Environmental Protection, and the Academy of Environmental Planning as part of the Australia China Environment Development Partnership
- CEO Chris Norman addresses the resilience conference in Canberra: Shaping Australia's Resilience – Policy Development for Uncertain Futures
- Goulburn Broken CMA submits final comments to the Victorian Auditor General's Review of the Performance Audit of Irrigation Water Stores: Lake Mokoan and Tarrago Reservoir
- Huw Davies resigns as Chair of Goulburn Broken CMA (page 9)
- April** Board endorses addendum to the Goulburn Broken Native Vegetation Plan relating to offsets for very old, large trees and slow growing trees
- Ian Sauer, National Gorse Taskforce Chairman, launches the Gorse National Best Practice Manual on Annemaree Docking's property at Willowmavin and Goulburn Broken community stalwart, Margaret Hatton, is recognised for her efforts as an outstanding Gorse management volunteer
- In memory of Ken Sampson, the Sampson Leadership Trust is launched to provide a perpetual annual scholarship of \$5,000 to aspiring young people working within the irrigation region (inside back cover)
- Goulburn Broken CMA staff address the (National) NRM Knowledge Conference in Darwin and Acting Chair Peter Ryan attends the National Chair's Forum in Darwin
- Wayne Tennant represents Australia in China as part of an Australia-China AusAID partnership to establish an institute of water excellence in Shanxi, China (case study 10 listed on page 13)
- Neville Atkinson, Indigenous Facilitator, attends United Nations Permanent Forum on Indigenous Issues in New York (page 34)
- May** Landscape Logic researchers present likely key findings and products of their water quality and native vegetation projects to catchment management practitioners from North East, North Central and Goulburn Broken CMA areas at Trawool (pages 11, 19 and 114)
- Mallee, North Central, Goulburn Broken and North East CMAs conduct Environmental Water Management Workshop at Moama
- Shepparton Irrigation Region Implementation Committee holds Landcare Celebration Day at Shepparton (case study 7 listed on page 13)
- Retirement dinner celebrates Bill O'Kane's contribution, including 12 years as Goulburn Broken CMA Chief Executive Officer
- June** Chris Doyle, former Chair of the Upper Goulburn Implementation Committee, resigns as a member of the Goulburn Broken Implementation Committee after 13 years of dedicated service (case study 4 listed on page 13)
- Goulburn Broken CMA's Biodiversity Strategy is finalised (page 113)
- Goulburn Broken CMA receives a 'silver award' for its 2008-09 Annual Report from the Australasian Reporting Awards, the highest level awarded to a natural resource management organisation
- Ken Sampson posthumously awarded the prestigious Maclean-Iedema Award, given by Irrigation Australia Limited every two years (inside back cover)
- Minister for Environment and Climate Change, Gavin Jennings MLC, proclaims the Lower Goulburn National Park and the Barmah National Park (page 8, 18 and 114)

Chair's review



I am pleased to present Goulburn Broken Catchment Management Authority's 2009-10 Annual Report.

Excellent levels of works were achieved in the face of significant and unprecedented challenges, thanks to the support and contributions of partner organisations, communities and landholders. The regional community also continued to prepare for a

rapidly changing world, with state-of-the-art plans drawn up to address various issues, from farm to whole-of-Catchment scales.

Activities and achievements were shaped by the ongoing dry seasons, the legacy of the February 2009 Black Saturday bushfires, personnel changes and several landmark Victorian and Australian Government policies.

Despite providing some salinity and water quality benefits, ongoing dry conditions have created significant problems for the Catchment's ecosystems and communities, with large numbers of farmers leaving the industry. The regional community's prosperity and ability to invest in the environment relies heavily on agriculture, with annual economic activity estimated to be \$9.5 billion. This report highlights the results of investment in the Catchment's environment that arise from strong community and government partnerships.

Bushfire recovery

The Goulburn Broken Catchment Management Authority and partner organisations play critical roles in rebuilding communities and the natural environment affected by the tragic Black Saturday bushfires.

The Victorian and Australian Governments funded a Fire Recovery Program that includes an employment component based on the highly successful Drought Employment Program model. This partially counters disappointment that the Drought Employment Program, which ran for three years, was no longer funded. The Drought Employment Program was largely responsible for the highest levels of fencing and weed control achieved since at least 1997.

Landcare networks and groups, which were quick to respond to devastation caused by the bushfires, are delivering a range of environmental works.

Some communities are understandably extremely sensitive to the fire risk when replacing and maintaining native vegetation. The Goulburn Broken Catchment Management Authority and partner organisations, especially all levels of government and Landcare, need to ensure that biodiversity assets have an opportunity to recover while human life and infrastructure is protected.

Large-scale projects

Significant landscape-scale projects began in 2009-10, including the Winton Wetlands development (as a result of the decision to decommission Lake Mokoan) and proclamation of the Barmah National Park and the Lower Goulburn National Park.

The Goulburn Broken Catchment Management Authority and a consortium of partners secured \$25.8 million for a project that will create water savings for the environment while driving new on-farm investment and technology. This is part of the Australian Government's first round of \$100 million funding under the On-Farm Irrigation Efficiency Program. Consortium partners are the North Central Catchment Management Authority, Northern Victorian Irrigators Incorporated, Dairy Australia and Murray Dairy, Goulburn-Murray Water, the Northern Victoria Irrigation Renewal Project, the Department of Sustainability and Environment, and the Department of Primary Industries.

Goulburn Broken strategy development

Periodic updates of Regional Catchment Strategy sub-strategies have enabled changes to be delivered from a current, long-term and integrated perspective, minimising the impact of a further deferral in updating the 2003 Regional Catchment Strategy.

The Goulburn Broken Biodiversity Strategy was updated following public consultation and alignment with Victoria's *Securing Our Natural Future*, a white paper for land and biodiversity at a time of climate change. The Biodiversity Strategy provides a regional perspective for implementing the White Paper and builds on previous biodiversity-focused strategies developed by the Goulburn Broken Catchment Management Authority in 2003 and 2004.

The Goulburn Broken Invasive Plants and Animals Strategy was drafted in readiness for the start of public consultation in July 2010. The Strategy will guide the various organisations that contribute to pest management in prioritising funding.

The 2005-2015 River Health Strategy underwent a mid-term review and a new Addendum was developed. The Addendum will guide the delivery of high priority waterway, river health and water quality programs for the next three years.

The first 12-month review of the Goulburn Broken Dryland Landscape Strategy was undertaken in 2010, resulting in an increased emphasis on community engagement, network development, and working with communities to improve soil and land management.

Government directions

The Goulburn Broken Catchment Management Authority was a major contributor to the Northern Region Sustainable Water Strategy, which was launched in December 2009 after 18 months of consultation. Water allocated to the environment (as part of its entitlement) can now be carried over to the following season. The Strategy will be a fundamental plank in our response to Murray-Darling Basin Authority's Basin Plan Sustainable Diversion Limits process during 2010-11. Skills and knowledge will also be provided for the technical review of the Plan's two 'icon environmental sites' within the Goulburn Broken Catchment: the Lower Goulburn River System and the Barmah-Millewa Forest.

The Victorian Government's *Securing Our Natural Future* is a long-term strategic framework that was also released in December. It flags the major change of merging the Goulburn Broken, North Central and North East Catchment Management Authorities into the Northern Rivers Natural Resources and Catchment Authority on 1 July 2011. This will provide advantages through improved regional decision-making, a new approach to the declining condition of natural assets focused on ecosystem resilience, high value assets and biolinks, and action at a landscape scale through an integrated statewide strategy. However, many local stakeholders, including Landcare groups and local government, have expressed concern about the ability of the larger merged Authority to maintain local community engagement. The Goulburn Broken Catchment Management Authority strongly believes that community engagement and involvement is essential to achieve onground environmental works and significant natural resource outcomes.

Challenges into the future

The recent trend in Victorian and Australian Government investment processes towards cross-regional-scale projects potentially undervalues regional-scale decision making and creates the risk of regional priorities being missed.

Finding the funds needed to maintain or to improve the condition of the Catchment is an ongoing challenge that requires ongoing presentations to government, the creation of proactive approaches to win competitive funding, and the seeking of alternative fund sources within the Catchment and beyond.

The Goulburn Broken Catchment Management Authority is strongly committed to Landcare and continues to financially support it despite shrinking Australian Government funding. A range of approaches were instigated to retain facilitators for the seven networks that support 93 groups. Opportunities for philanthropic and corporate funding for Landcare activities also began to be investigated, thanks to funding from the Victorian Government's Volunteer Recruitment Initiative to undertake a pilot project in the Catchment.

Climate variability continues to challenge the community and the Catchment, be it freak storms or the prevailing dry conditions. The Goulburn Broken Catchment Management Authority continues to help regional and farm-scale stakeholders to integrate climate adaptation into their management. Consistent with this integrative approach, this year's Annual Report highlights our climate change response within each investment area report rather than in a section on its own.

Changes in personnel

There were major changes to Board and management in 2009-10.

The new Board was appointed in July 2009. John Pettigrew, Lyn Gunter and Dr Huw Davies were reappointed and Murray Chapman, Frank Whitford, Terry Court, Eileen Curtis, Russell Pell and I became Directors. Huw, the Board's Chair, resigned from the Board at the end of March 2010. Huw was an active contributor as a director from 1997 to 2003 and as a director and the Chair for two years from 2008 to 2010. He played a critical leadership role for the Board over this period and his experience, knowledge and commitment is acknowledged and appreciated.

We lost a great contributor in Ken Sampson, who passed away suddenly in October. Ken will be remembered for his passion for the environment and the community through his work as Executive Officer of the Shepparton Irrigation Region Implementation Committee and through his private life.

Chris Norman commenced as the Chief Executive Officer on 15 December 2010 after Bill O'Kane finished up in the role. I would like to thank Bill for his 12 years as Chief Executive Officer. Bill also had the leadership role with the preceding Goulburn Broken Catchment and Land Protection Board, and contributed over 20 years to natural resource management in this Catchment. He leaves a significant legacy: a vibrant and professional organisation that is well placed to face the challenges of the future.

Partnerships drive success

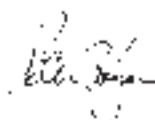
Achieving the works that deliver our Catchment Vision relies on the goodwill, support and technical expertise of many individuals and organisations.

On behalf of the Goulburn Broken Catchment Management Authority, I thank our many partners, including our Implementation Committees, Landcare, landholders, Department of Primary Industries, Department of Sustainability and Environment, Goulburn-Murray Water, Goulburn Valley Water, Northern Victoria Irrigation Renewal Project, Australian Government agencies, local governments, and community groups and organisations.

Along with the other members of the Board, I look forward to working with Chris Norman, our Chief Executive Officer, staff and partner organisations in guiding the merger of the Goulburn Broken, North Central and North East Catchment Management Authorities, investigating new and effective community engagement approaches across a larger area of the State, whilst maintaining our strong track record of catchment improvement through onground delivery.

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 2010.



Peter F Ryan
Acting Chair
24 August 2010

Chief Executive Officer's report



I am pleased to present the 2009-10 financial results and organisational achievements for the Goulburn Broken Catchment Management Authority.

The past 12 months has seen us working hard with partners and the community to meet most targets in the face of challenges such as the ongoing dry conditions, bushfire impacts and significant organisational change.

Bushfire recovery

The February 2009 Black Saturday and 2006 bushfires burnt over one-third of the Catchment's woody native vegetation. Since Black Saturday, more than \$6 million has been committed by the Victorian and Australian Governments to critical recovery operations. Achievements include the protection of 15 threatened species through relocation or habitat creation, 400 hectares of weeds controlled, over 85 hectares revegetated and nearly 600 hectares of remnant vegetation protected by fencing. These achievements have been supported by the Fire Recovery Program that has seen 10 local people actively employed in fire recovery work.

This work has recently been complemented by the Department of Sustainability and Environment's Recycling for Recovery Program, which has provided an additional \$873,000 for Landcare activities to deliver onground works and social outcomes, helping fire-affected communities recover.

Climate change

The recent cycle of drier and hotter weather has had a significant impact on our natural environment. Several rivers and streams through the Broken-Boosey systems dried up temporarily during 2009-10, raising community alarm and impacting on flora and fauna. This resulted in a habitat survey by the Australian Platypus Conservancy that reinforced the importance of our riparian works. However, in the event of further reductions in available water, the current regional drought planning will continue to give priority to the Broken River over the Broken Creek.

Our irrigators continued to cope with low water allocations in the face of reduced commodity prices. In conjunction with a range of consortium partners, the Goulburn Broken Catchment Management Authority developed and led the On-Farm Irrigation Efficiency Program (Farm Water Program), which saw significant oversubscription in the improved flood irrigation component (179 expressions of intent were submitted). In total, approved submissions will result in approximately 5.1 gigalitres of water being transferred to the Commonwealth and State Environmental Water Holders for future use in improving river health.

We were disappointed that the spray and sub-surface drip components of our On-Farm Irrigation Efficiency Program bid to the Australian Government did not get funded in Round One, but have held extensive discussions to put us in the best possible position for funding of these technologies in Round Two in late 2010.

This year also saw the 500th reuse system incentive being provided in the Shepparton Irrigation Region, reinforcing that, with reduced water allocations, every drop of irrigation water is critical. This approach reduces loss of irrigation water to the watertable or off-farm from irrigation drainage. In addition, 85 per cent (269,232 hectares) of the Shepparton Irrigation Region is now covered by whole farm plans. Incentives continue to be provided for whole farm planning across the Catchment to ensure the efficient management of land and water resources, especially if a wetter cycle returns to the Catchment.

River health and floodplain management

Funding from the previous sale of part of the water quality reserve has seen the acceleration of a number of high priority river health and water quality projects in 2009-10. Key achievements were improved monitoring of key wetlands, and investment in the Bushfire Recovery Program to complete works such as the treatment of 2,570 hectares along stream frontages.

The Goulburn Broken Catchment Management Authority is continuing to build expertise and innovation in the efficient use of environmental water, using approaches such as inter-valley transfers and passing flow reserves to extend and slow the rate of fall of any natural flush along the Goulburn River, downstream of the Goulburn Weir. In addition, the Goulburn River Environmental Flows Hydraulic Study has provided initial information in understanding the flows and issues associated with floodplain inundation.

In 2009-10, 2,582 megalitres of environmental water under the Victorian River Murray Flora and Fauna Bulk Entitlement was delivered to the Catchment's wetlands, benefiting a large number of species. At Doctors, Kinnairds, Black and Reedy Swamps, 246 bird species and 21 frog species were recorded, and 8 flora species and 17 fauna species listed as threatened or vulnerable were observed.

Support continues to be provided to local government in undertaking key flood studies, such as the Seymour Flood Mitigation Consultation Plan, Violet Town Floodplain Management Study, Euroa Flood Mitigation Implementation Plan, Nathalia Flood Mitigation Implementation Plan and Tatura Flood Mitigation Plan. Importantly, funding was recently secured to review the flood levels in the fire-affected Flowerdale area to ensure rebuilding occurring in this location would not be subject to further destruction from flooding. Our excellent response rate to statutory planning applications was maintained in 2009-10, with more than 98 per cent determined within prescribed time limits.

Biodiversity

The completion of the Goulburn Broken Biodiversity Strategy (2010-2015) will provide renewed focus for the Catchment's biodiversity efforts. In 2009-10, a significant highlight was the 705 hectares of threatened grassy woodlands to be protected in this Catchment as part of the Threatened Grassy Woodlands Project, undertaken with our neighbouring North East and Murray (New South Wales) Catchment Management Authorities. In addition, 1,347 hectares of remnant native vegetation were fenced and 460 hectares revegetated through our environmental management grants and complementary projects.

The Goulburn Broken Catchment Management Authority is a partner in many research projects, including Landscape Logic, which began in 2006. Research is critical to our knowledge of biodiversity, including the various drivers impacting on the resilience of our fragile ecosystems. Preliminary results of Landscape Logic indicate that there has been a reverse in the decline of woody vegetation loss in the Catchment, which is principally due to more natural regeneration around remnant trees and reserves than to revegetation.

Business improvement

The focus this year has been on revisiting the vision, purpose, values and behaviours of the organisation and using these to drive our approach with investors, partners and interactions with landholders. We have invested in improved communications and marketing of the Goulburn Broken Catchment Management Authority to ensure our story and educative role is more obvious to our rural and urban communities.

Work has continued in the area of monitoring, evaluation and reporting, helping to ensure that we are viewed as a reliable and efficient investor of the \$29.9 million of government funds received in 2009-10. This is further illustrated in the way we have documented the impacts of our work and the condition of the Catchment in the various investment areas described throughout this Annual Report.

Acknowledgements

After 12 years as Chief Executive Officer, Bill O'Kane, my predecessor, retired from this position in late 2009. Having led the Goulburn Broken Catchment Management Authority since its establishment in 1997, he leaves behind a strong legacy of accountable and transparent onground activity forged through effective community and government partnerships.

I would also like to recognise Ken Sampson, who sadly passed away in October 2009. Bill and I wish to personally acknowledge Ken's contribution to the Goulburn Broken Catchment Management Authority. His passion and commitment to implementing the Shepparton Irrigation Region Land Water Management Plan was admired by all and his loss to this Catchment will be felt for a very long time.

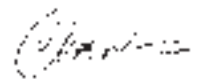
Chris Doyle, a long-serving member of the Broken Goulburn Implementation Committee and former entities, also resigned in 2010. Chris was an active contributor to natural resource management in this Catchment since the early 1980s, stemming back to his membership of the Upper Goulburn Waterway Authority and the Mid-Goulburn Catchment Coordinating Group, through to membership and chairing of the Upper Goulburn Implementation Committee between 1998 and 2008.

Our success in getting works on the ground is largely due to the support from our community, represented by our two Implementation Committees, our 93 Landcare Groups, our urban citizens, and most importantly, the Catchment's landholders. In turn, we rely on a growing number of partner organisations to deliver onground works, namely local government, Department of Primary Industries, Department of Sustainability and Environment, Goulburn-Murray Water, Northern Victorian Irrigation Renewal Project, Goulburn Valley Water, Northern Victorian Irrigators, Murray Dairy, Victorian Farmers Federation, and the Yorta Yorta Nation Aboriginal Corporation and Taungurung Clans Aboriginal Corporation.

Over the coming year, we will continue to recognise the importance of these partnerships as we make the transition to the new Northern Rivers Natural Resources and Catchment Authority.

These reports never have the space to highlight all of the efforts and achievements of our staff, partners and communities in working to achieve our vision for the Catchment. I invite you to learn more about our achievements by reading this Annual Report.

Finally, I want to thank the staff and Board of the Goulburn Broken Catchment Management Authority for their commitment, passion and insight as we continually strive to protect the best catchment in Australia.



Chris Norman
Chief Executive Officer

Annual scorecards

Most output targets listed in the Corporate Plan were achieved in 2009-10. There were few works targets that were not met (see Appendix 3, Outputs - detailed list of achievements, on page 124).

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

Salinity works targets were exceeded in the Shepparton Irrigation Region because irrigators continued to show great interest in water-efficiency projects, which usually have complementary salinity benefits, because of the extended drought and the opportunity to link with the Northern Victoria Irrigation Renewal Project.

Appendix 1, Understanding progress and ratings (page 91), describes the analytical framework, including outputs, targets, investment areas and integration, and ratings.

Investment and gross output performances in investment areas

Investment area ⁱ	Investment ⁱⁱ (including partnership funds)				2009-10 performance ^{iv} (outputs)	Details page
	2007-08 \$000	2008-09 \$000	2009-10 \$000	Forecast ⁱⁱⁱ 2010-11		
The Environment						
1 Salinity: watertables and River Murray salinity						
1a Shepparton Irrigation Region	12,060	11,720	8,607	5,863	Exceeded target	93
1b Dryland	2,960	1,800	1,821	1,580	Exceeded target	98
2 River health	13,020	13,630	12,398 ^v	4,239 ^v		
2a Environmental flows and water supply					On target	101
2b Riparian and instream habitat and channel form					On target	101
2c Water quality (nutrients) in rivers and streams					On target	101
3 Biodiversity	2,050	1,390	2,512	2,908	On target	112
4 Flood protection	400	440	614	353	On target	118
5 Pest plants and pest animals ^{vi}	1,140	1,100	0	0	Below target	121
The Business						
A Governance	1,700	1,519	993	1,003	On target	39
B Collaborations and communities	3,660	3,480	1,928	760	On target	17
C Planning and responding	Part of A				On target	26
D Human resources	4,200	4,346	4,402	4,978	On target	31
E Environmental footprint	6	15	6	20	On target	33

ⁱ Investment areas and integration between them are described in Appendix 1 on page 91.

ⁱⁱ Investment figures do not include interest before 2008-09 and includes funding to partners.

ⁱⁱⁱ Based on confirmed advice at August 2010.

^{iv} Performance ratings are based on outputs achieved as listed under investment area details in this annual report; outputs are described in Appendix 1 on page 91.

^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} Funding to DPI's Pest Plants and Animal Program are not included in the regional investment process for 2009-10 and 2010-11.

Aggregate output performance across all investment areasⁱ in 2009-10

Output ⁱⁱ	Achieved	Target	Performance	
			% achieved	Rating
Remnant vegetation fenced, hectares	1,347	1,375	98	On target
Long-term conservation agreements, hectares ⁱⁱⁱ	906	915	99	On target
Indigenous revegetation planted, hectares	1,708	1,403	82	On target
Irrigation drains built, kilometres	10	11	91	On target
Reuse systems installed, numbers	76	47	162	Exceeded target
Irrigation systems improved in SIR, hectares	14,217	5,400	263	Exceeded target
Groundwater pumps installed, numbers	9	6	150	Exceeded target
Weeds treated, hectares	38,525	35,240	109	On target
Rabbits and foxes treated, hectares	113,950	95,380	119	Exceeded target
River or stream erosion controlled, kilometres	212	63	338	Exceeded target
Fishway structures installed and barriers modified, numbers ^{iv}	1	0	-	Exceeded target
Aquatic habitat works ^v , numbers	16	11	155	Exceeded target
Threatened species projects, numbers	12	14	86	On target
Whole farm plans prepared, numbers	259	278	93	On target

i From funds received through Corporate Plan 2009-10 (although some weeds and rabbits and foxes treated include other numbers).

ii Outputs shown in this table are derived from the more detailed set on page 124. Outputs are described in Appendix 1 on page 91. Detailed outputs relating to each investment area are listed in sections devoted to each investment area throughout this report.

iii These are shown as 'Binding management agreements' in the detailed outputs on page 124.

iv Target was 0 because new funding arrived during the year (after Corporate Plan was finalised).

v Significantly Enhanced Aquatic Refugia.

Case studies at www.gbcma.vic.gov.au

Case studies show how actions to address natural resource management problems happen, illustrating the level of integration between programs and between government agencies, community organisations and individuals in the Goulburn Broken Catchment. Apart from the two case studies in the body of this Annual Report (Fire Recovery Program page 22 and Farm Water Program page 25), the following case studies are available at www.gbcma.vic.gov.au.

Case studies		Features
1	Landcare's fences without boundaries project restores fences in fire-affected area	Employment, remnant vegetation protection, weed control, water quality monitoring
2	New trailer aids fire recovery at Kinglake	Replacement of Landcare group trailer that was destroyed in Black Saturday bushfires
3	Yorta Yorta and Goulburn Broken CMA cultural heritage programs	Cultural heritage support, language program, working on Country
4	Community leader Chris Doyle acknowledged	Community leadership in upper parts of Catchment
5	Ray Thomas National Geographic award 2009	Conservationist of the Year, Regent Honeyeater
6	Tungamah fox hunters awarded	Parks Victoria Awards, fox control
7	Landcare awards in Shepparton Irrigation Region	High achieving community groups and individuals
8	Irrigation farm reconfiguration, water savings and revegetation near Barmah	Irrigation farm (4,410 hectares) reconfiguration and rationalisation, Water for Rivers and water saving, revegetation, Drought Employment Program
9	Groundwater pump incentive and drainage – Tapping the benefits	Salinity management, long-term program (300th groundwater pumping incentive)
10	Goulburn Broken CMA involved in Australia–China AusAID partnership	International partnership to establish an institute of water excellence in Shanxi province
11	Flows in Broken and Boosey Creeks during dry times	Managing competing demands, Tungamah pipeline
12	Carp removal from Hughes Creek benefits endangered Macquarie Perch	Fish Recovery Plan, partnership with researchers
13	Protection of Box-Gum Grassy Woodlands and Buloke Woodlands	Interstate and inter-agency cooperation, threatened species and communities, landholder incentives

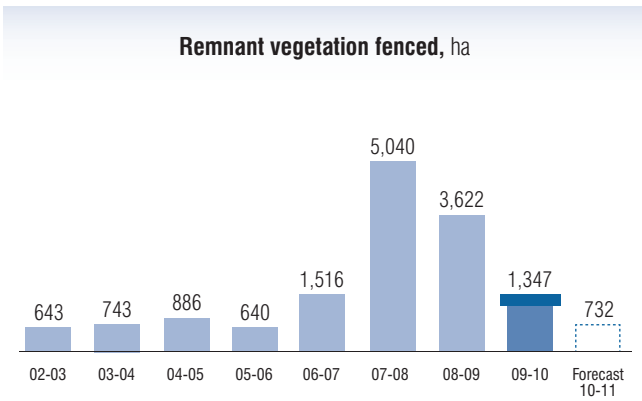
Outputs achieved 2002-03 to 2009-10 and forecast 2010-11

The following graphs show that achievements of onground action fluctuate significantly from year to year. This is usually according to available government funding. The long dry period, which now extends to 13 years, has resulted in greater emphasis on water-use efficiency actions, such as installation of reuse systems and improving irrigation systems. These actions are consistent with directions set in 1989 (see pages 26 and 93) and 1996 (see page 102) 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 are prepared to ensure that works undertaken at the farm scale are consistent with the needs of the Catchment, as described in whole-of-Catchment strategies and plans. More than 85 per cent of the farmed area in the Shepparton Irrigation Region is covered by whole farm plans (see page 24 and Appendix 4 map, page 126).

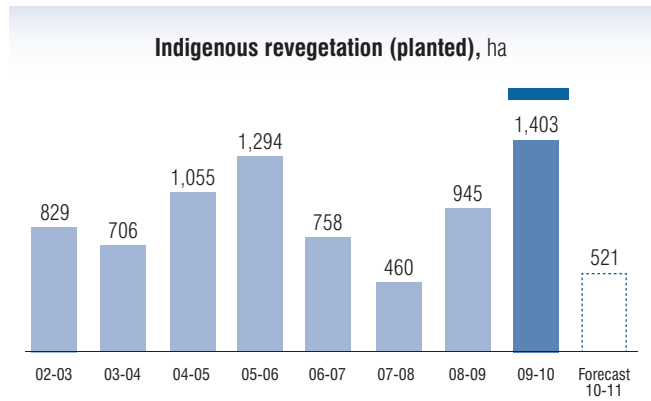
Outputs shown in the following graphs are derived from the more detailed set of outputs on page 124. Outputs, including limitations in measuring them, are described in Appendix 1 on page 91.

Note on forecast targets:

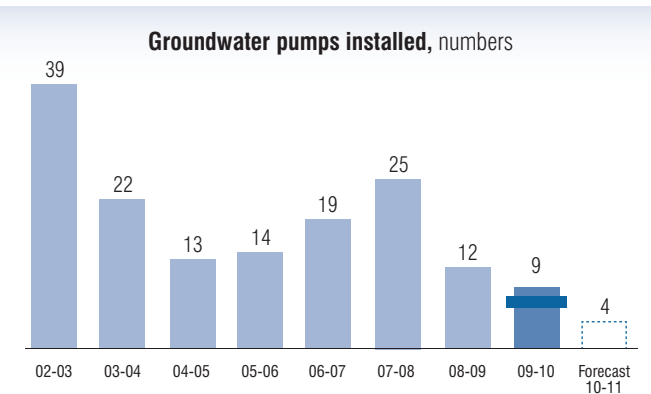
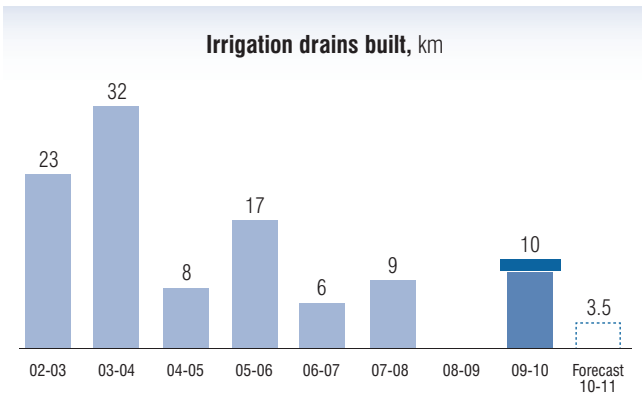
Forecast output targets are generally lower than what was achieved previously because they are based on indicative rather than actual funding received. Forecasts do not take into account new funding opportunities that arise during the financial year.



Substantial areas of remnants were fenced through environmental grants and other projects, although achievements were significantly down on the previous two years because the Drought Employment Program could not be continued (pages 107 and 113).



The achievement shown includes 705 hectares of natural regeneration in the Broken Goulburn Implementation Committee area (page 113). Only 27 per cent of the target (91 of 345 hectares) was achieved in the Shepparton Irrigation Region because staff have focused on more urgent environmental aspects of irrigation modernisation. Commitments to revegetate are accruing and will be serviced.

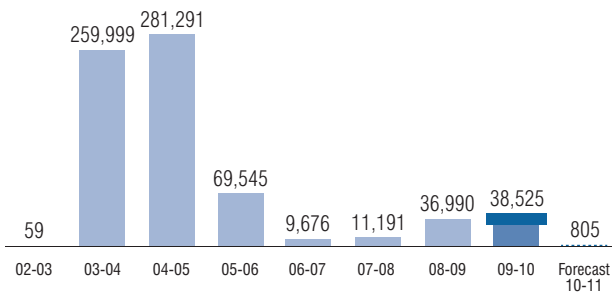


Core actions of the 1990 salinity plan continue to be implemented (page 93).

Legend

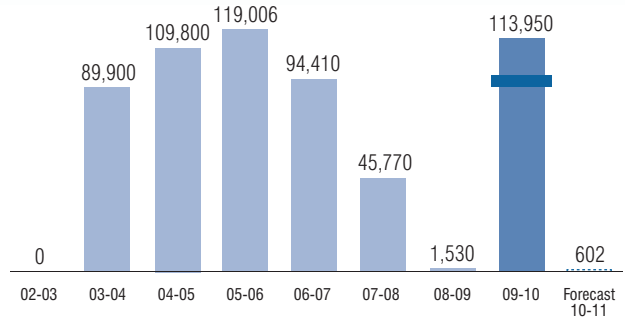
■ Target for 2009-10

Weeds treated, ha



Along stream frontages, 2,570 hectares of weeds were treated, mostly through the Fire Recovery Program (page 107).

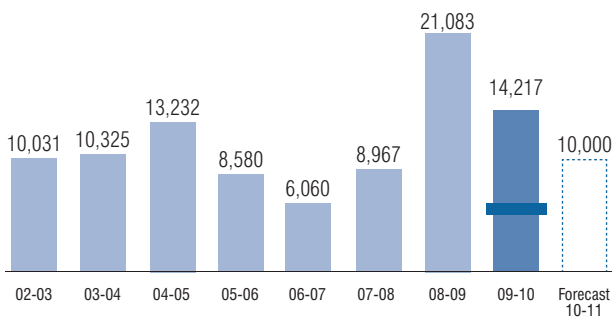
Rabbits and foxes treated, ha



Whroo Goldfields and Broken Boosey Conservation Management Networks controlled foxes across large areas (page 115).

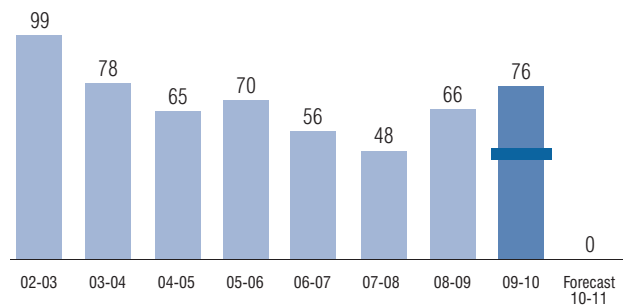
DPI pest plant and animal activities were removed from the Goulburn Broken CMA's investment process from 2009-10, however DPI and the Goulburn Broken CMA continue to work together on pest plant and animal issues (page 121). Targets for rabbits and foxes treated are lower than the number achieved in previous years because of reduced investment in collaborations and communities that support these activities (and see the note on forecast targets on the previous page).

Irrigation systems improved in Shepparton Irrigation Region, ha



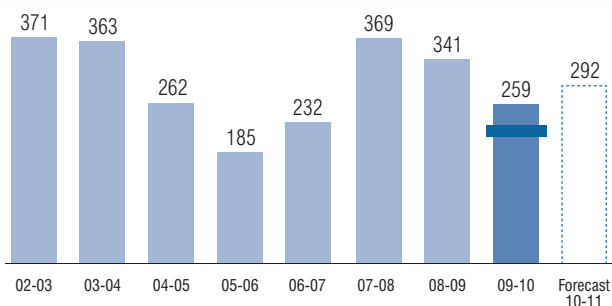
Strong interest from irrigators continued due to the extended drought and the Northern Victoria Irrigation Renewal Project (page 93).

Reuse systems installed, numbers



The target was exceeded because extension efforts were ramped-up so that this phase of the incentives project could be concluded by the end of 2009-10. Investment in reuse systems will continue via the Farm Water Program in 2010-11 and a target has not been set yet.

Whole farm plans prepared, numbers



115 per cent of the target was achieved. Fire Recovery Program activities took precedence in Broken Goulburn Implementation Committee area where only 72 per cent of the target (47 of 65) was achieved (page 20). In the Shepparton Irrigation Region, 24 were revised 'modernised' plans that take into account the changed regional channel delivery infrastructure (page 94).

See map on page 126 (Appendix 4).

Legend

■ Target for 2009-10

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 simply 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. The long dry period is also having a significant impact on the uptake of some actions and is directly affecting Catchment condition.

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.

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

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	2010	Trend	
The Environment							
1 Salinity: watertables and River Murray salinity							
1a Shepparton Irrigation Region salinity	1990-2020	On target	↓	Poor	Good	↑↑	93
1b Dryland salinity	1990-2050	Below target	↓	Poor	Satisfactory	↑	98
2 River health							
2a Environmental flows and water supply	2004-present	On target	↑	Poor	Very poor	↓	101
2b Riparian and instream habitat and channel form	2005-2015	Below target	↑	Poor	Satisfactory ^v	↑	101
2c Water quality (nutrients) in rivers and streams	1996-2016	Exceeding target	●	Very poor	Satisfactory ^v	↑	101
3 Biodiversity	2000-2030 2004-2007	On target	↑	Poor	Poor	●	112
4 Flood protection	2002-2012	Exceeding target	●	Very poor	Poor	↑	118
5 Pest plants and pest animals	2001-present	Below target	●	Poor	Poor	●	121
The Business							
A Governance	Rolling 5 year Corporate Plan	On target	●	Poor	Satisfactory	↑	39
B Collaborations and communities	2005-present	On target	↓	Poor	Poor	●	17
C Planning and responding	Rolling 5 year Corporate Plan	On target	↓	Poor	Satisfactory	↑	26
D Human resources	various	On target	●	Satisfactory	Satisfactory	●	31
E Environmental footprint	2007-10	On target	●	Very poor ^v	Poor ^v	↑	33

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 details 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 Ratings for 1990 have been determined using our understanding in 2010 of what the situation was like 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 Rod McLennan, Chris Norman, Tony Kubeil, Peter Howard, Rhiannon Apted, Carl Walters, Neville Atkinson, Wayne Tennant, Karen Brisbane, Mark Cotter, Rick Felton, 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	2010	Certainty of rating	Trend
2009-10 performance	Outputs (against targets set as a result of funds received) Corporate Plan KPIs (see page 55)	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 Uniform regulations developed Joint forums Shared staffing Funds from various sources contributing to natural resource management Corporate memory Management systems	Poor	Low	Poor	Low	●

ⁱ See Appendix 1 for notes on the analytical framework (page 91), including an explanation of the decision focus and ratings.

ⁱⁱ Ratings for 1990 have been determined using our understanding in 2010 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 define the roles and responsibilities of stakeholders.

The regional community invests about one dollar for every dollar of government funding despite continuing drought conditions (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.

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 are therefore a major conduit

Government investment, \$000

2007-08	2008-09	2009-10	2010-11 ⁱ	Trend
3,660	3,480	1,928	760	↓

ⁱ Forecast based on funding advice at July 2010

Major strategic references

- Goulburn Broken Community Landcare Support Strategy 2005-2010
- Shepparton Irrigation Region Implementation Committee Communications Strategy
- GB CMA Communications Review 2009
- Dryland Landscape Strategy Community Document 2009-2011
- Various memoranda of understanding

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 are 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 124.)

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.

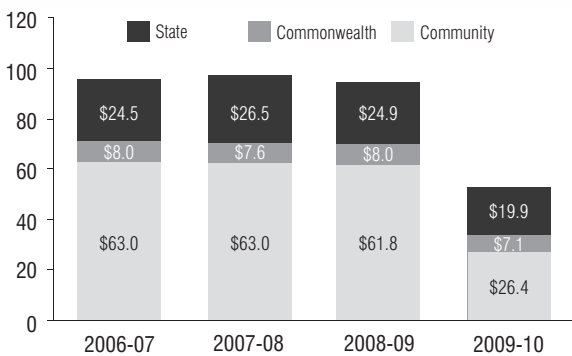
- Uniform regulatory backing has been developed across municipalities in SIR, in the form of Uniform Planning Regulations and New Irrigation Development Guidelines.
- The post fire recovery has shown up some deficiencies in the accountabilities and commitments to preservation of native vegetation that need to be addressed urgently to prevent a repeat of unauthorised clearing on large scale.
- The fires have polarised communities in the Mitchell and Murrindindi Shires on native vegetation.
- Despite the devastating effects of the Black Saturday bushfires on the Catchment and its people, the community, with Landcare a significant influence, is taking action to recover.
- Targeting of landholders has improved markedly due to better knowledge of agency and landowner relationships.
- Corporate memory at all levels is a major problem (consistent with the challenge that has emerged in western world since 1990 of rapid staff turnover in all jurisdictions): better information systems are being built to inform new staff quickly so they can more readily respond to needs.

What's next?

Challenges that apply across both Implementation Committee areas with respect to collaborations and communities are listed below. See also 'What's next?' sections under BGIC and SIRIC reports for implementation committee specific points (pages 20 and 23).

- Efforts to generally involve the community and local government in natural resource management will be emphasised.
- Victorian Environmental Assessment Council's River Red Gum Forests Investigation Final Report 2008 will be implemented:
 - Goulburn Broken CMA Board and SIRIC are heavily involved in providing links with stakeholders during implementation, including implications of the proclamation of new national parks in 2010.
- The community will be provided opportunities to be involved in large scale river restoration projects and demonstration initiatives.
- The Victorian Government's *Securing Our Natural Future*, a white paper for land and biodiversity at a time of climate change, is having a significant impact:
 - preparations are underway for major institutional changes, set down for 1 July 2011 when the Goulburn Broken, North Central and North East CMAs become one body: the Northern Rivers Natural Resources and Catchment Authority.
- 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 has been extended for 12 months and work will include helping to establish networks with businesses and philanthropic trusts to increase volunteerism, skill-based support and sponsorship in North Central and North East CMA areas.

Major contributions to natural resource management, \$million



Community investment in 2009-10 is significantly less than that shown in 2008-09 because government investment in Shepparton Irrigation Region salinity was reduced (page 93) and the analysis of cost-sharing arrangements was revised (Draft Shepparton Irrigation Region Catchment Implementation Strategy Review 2010) following a tightening financial situation for irrigators due to drought over the past ten years.

Long-term strategies implementation progress

- Goulburn Broken CMA's strategies for engaging stakeholders and collaborative agreements are many and varied, reflecting the diversity of the natural resource management business.
- 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 one dollar, despite the continuing drought
 - 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.

Summary of relationships between GB CMA, implementation committees and partners

Multiple agency, community groups, individuals	Memoranda of Understanding (MoU) <ul style="list-style-type: none"> - 2006-07 Catchment Partnership MoU between Goulburn Broken CMA, G-MW, DSE, DPI and EPA Victoria - 2004 Irrigation Drainage and Water Quality MoU between Goulburn Broken CMA, DSE, EPA Victoria, North Central CMA and G-MW Multiple agency and community partnership projects include <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 and North Central CMAs, Northern Victorian Irrigation Renewal Project, DSE, DPI, G-MW, Dairy Australia, Murray Dairy and Northern Victorian Irrigators Inc. - 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
Individuals	Extension advice and 892 incentives were provided to land managers via agency partners 2009-10
Indigenous people	Goulburn Broken CMA's Indigenous facilitator (appointed in 2005) and two cultural heritage advisers (appointed in 2009) foster trust between wider and Indigenous communities and protect Traditional Owners' values through: <ul style="list-style-type: none"> - liaison with planners and works supervisors - representing Yorta Yorta people and Taungurung people on various forums - cultural heritage planning in partnership with other agencies - 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 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 See also case study at www.gbcma.vic.gov.au : <i>Yorta Yorta and Goulburn Broken CMA cultural heritage programs</i>
Landcare and community groups	Landcare support is a priority for the Goulburn Broken CMA Implementation of Community Landcare Support Strategy through 93 Landcare groups and seven networks; 14 natural resource management groups (climate change, biological farming, sustainable farming, etc)
Landcare and corporate partners	The Landcare Corporate Partnership project began in 2009 as a pilot for the State Landcare Team's Volunteer Recruitment Initiative. The aim is to increase volunteerism from the corporate sector and to link corporates with natural resource management projects within the Goulburn Broken Catchment. Corporate bodies such as Citipower, Powercor, Mobile Muster and CSL have contributed \$42,000 and the volunteer-base has increased through staff from CSL, Morrows Private Wealth and Beltex-Whole Body Experience and through members of various Rotary and 4 wheel drive clubs. Foundational tools have been built to help Landcare networks approach corporate bodies and to access skills from local business such as accounting firms.
Local government	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. Broken Goulburn Implementation Committee representatives attend local government meetings as needed (Benalla, Mansfield, Mitchell, Murrindindi and Strathbogie Shire Councils). 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.
Department of Primary Industries	Represented on both Implementation Committees and provide technical support Service agreement and partnership MoU with Goulburn Broken CMA Deliver most extension and grant assessment services such as whole farm planning, stock containment area program and pest plant and pest animal activities and research Critical partner in engagement of and delivery of Fire Recovery Program to landholders
Goulburn-Murray Water	Technical and program support Represented at all SIRIC, Waterway and Wetlands working groups and Goulburn Broken CMA Partnership Team meetings and as required at BGIC meetings Service agreement and partnership MoU with Goulburn Broken CMA Project manage and deliver most Surface and Sub-surface Water Management Program projects in the SIR including research
Department of Sustainability and Environment – Regional	Service agreement and partnership MoU with Goulburn Broken CMA Manage extensive areas of public land in the Catchment, especially forests in the upper Goulburn and the Barmah Wetlands Deliver projects that assist threatened species such as woodland birds, Barred Galaxias, Mountain Pygmy Possum, Striped Legless Lizard, and Spotted Tree Frog Represented on BGIC and provide technical support
Department of Sustainability and Environment – Head Office and Australian Government	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 Collaborate with DSE programs such as River health, Irrigation and Landcare
Other groups	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

Broken Goulburn Implementation Committee (BGIC)

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), Neil Devanny (until March 2010; Gooram), Sandy MacKenzie (from May 2010; Avenel), Heather Ingpen (Ancona), Margaret Hatton (Kilmore), Rita Seethaler (Taggerty), Sally Abbott Smith (Glenburn), Bill Wells (Strathbogie), Chris Doyle (Tallarook).

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 Dryland Team oversees delivery of the Strategy.

The Dryland Team 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 Dryland Team.

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 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. However, progress in implementing the Strategy's actions remains largely on track due the Strategy's alignment with Victorian Government's policies, including *Securing Our Natural Future*, a white paper for land and biodiversity at a time of climate change, which was released in December 2009.

2009-10 performance

This year BGIC supported delivery of an \$11.6 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 played a crucial role in delivery through communicating with partners. BGIC recognises the major efforts of DSE, DPI, Landcare and Goulburn Broken CMA operational teams (Waterways and Biodiversity) in delivering onground outputs.

The commitment of regional partners to collaboratively plan and implement the Fire Recovery Program (following the 2009 Black Saturday bushfires) is resulting in some excellent approaches, such as an employment program and coordination of volunteer support by Landcare. This in turn is resulting in excellent levels of output achievement. Onground staff have been diverted to implement the Fire Recovery Program, which has affected the delivery of core business works. This has been a deliberate reallocation of resources to a priority need.

Collaborations and communities

BGIC advised on the development of a communication and engagement plan and delivered some parts of it. As the main conduit to the Catchment community, BGIC sought and communicated feedback from Landcare groups, local communities and local government councils to Goulburn Broken CMA's Board and program managers.

Communication Sub-committee

- BGIC established a Communication Sub-committee to develop a work plan, guide, calendar and stakeholder engagement list for communications. BGIC implements the work plan, which includes improving processes and reporting and supporting partners through regular meetings. These meetings provide opportunities to discuss issues of mutual interest and to be jointly informed about emerging issues, strategies and works around the Catchment, creating opportunities for joint involvement.
- Mitchell Shire environment staff were invited to present to BGIC at one of its meetings. The presentation highlighted the achievement of working together on Kilmore Creek. Through this meeting, the Goulburn Broken CMA agreed to fund and complete woody weed control works on Mollisons Creek, while DSE and Mitchell Shire developed a process to hand the management of the Creek over to a committee of management.

Communication approach to be overhauled by Mitchell Connection findings

- It became clear to BGIC members and support staff that a greater understanding of how and where communities receive their natural resource management information, and what empowers them to act upon receiving it, is needed. This becomes increasingly important in the context of ever-changing communities and when urgent information needs to be communicated, such as protecting farm-dam water supplies after bushfire.
- The Mitchell Connection project helped to unravel the needs of the community and identified ways to connect better with a broader audience, showing that our language, message and focus were often at odds with communicating effectively. While the broad community regards environmental issues as important, individuals often do not see how such issues are relevant to their sphere of interest or how they can act on their preference for a better environment. To connect with the wider community, we must make our language acceptable, ensure issues, including scale, are relevant to the particular community's experience, and ensure that what people are being asked to do is reasonable in their eyes. These findings will be used to overhaul the communication of programs, issues and opportunities in the Dryland.

Local government

- BGIC is developing a strong relationship with local government in the Dryland region. In 2009-10, BGIC met with its five municipalities to establish a platform for program and message delivery. 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.
- Natural resource management needs to be recognised as a priority driver of state and local government planning decisions and integrated into land-use planning. While there has been progress in developing relationships with local government, there is more to be done. We had input into developing and reviewing the Murrindindi Environment Strategy, the Gallipoli Park Master Plan, the Marysville, Mansfield Groundwater Study, and offered assistance to each council as they review their municipal strategic statements.

Landcare support funding challenges

- The Goulburn Broken CMA and BGIC regard Landcare facilitation as a high priority. BGIC's commitment to Landcare support in 2009-10 resulted in continuation of facilitator employment, while across the State many positions were lost. The Goulburn Broken CMA secured scarce funds by raising the profile of Landcare at regional, State and Commonwealth levels. The Goulburn Broken CMA also worked with Landcare networks to develop their potential to become self-funded (see Landcare and corporate partners in table on page 19).
- Ongoing support depends on the outcome of 2010-11 funding submissions. Landcare networks and groups have been kept well informed by the Regional Landcare Coordinator during these uncertain times. Landcare members are being supported to ensure that their contribution to the delivery of natural resource management programs is recognised at State and Commonwealth levels.
- Landcare has been very active in the delivery of fire recovery activities. The coordination of volunteer support and other community-based natural resource management activities delivered 25 per cent of the total fire recovery funding from the Australian Government's Caring for Our Country program.

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 Recovery Program. Outputs delivered in the BGIC area are shown in the table in Appendix 3 (page 124).

Planning and responding

- In November 2009, BGIC convened a water forum – 'What's happening with water?' – in response to rising community interest in managing and allocating surface and groundwater resources. The forum was an introduction to surface and groundwater management in the Catchment. It provided an opportunity for BGIC and the Goulburn Broken CMA Board to engage with local government, the Victorian Farmers Federation, Landcare groups, members of the community and local politicians on this issue. The forum led to a partnership between the Kinglake Action Network and Development Organisation, Murrindindi Climate Network and Goulburn Broken CMA to convene a second community forum on the issue.

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. BGIC will develop a Stakeholder Engagement Plan that will direct its work plan and activities for 2010-11. The Plan will align with the Catchment-wide Communications and Marketing Plan, 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 and an assessment of the community engagement component of the Program, with an emphasis on lessons learned that may assist in responding to, and recovering from, future and inevitable bushfires.
- 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 5-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 2010.
- BGIC will continue to support the landholder-initiated work on alternative farming systems and soil management.
- BGIC will work closely with DSE to develop a DSE State soil health strategy, which will be aligned with DSE's Victorian Investment Framework priorities.

Case study

Landcare, the community, and recovering from Black Saturday

Compiled by Mark Cotter

The fires that began on Black Saturday of 2009 ravaged the state of Victoria for more than four weeks, killing 173 people. The Goulburn Broken Catchment was the worst affected with 190,000 hectares burnt, including 160,000 hectares of woody native vegetation.

It was realised that for any clean-up and restoration to be effective, State and Commonwealth Government agencies would have to work closely with community networks. The Community Environment Fire Recovery Coordinating Committee was established with representatives from these agencies and community groups.

Members of Landcare networks and staff from the Department of Primary Industries began working with the community immediately after the fire was contained. Several field days, focusing on issues that were foremost in the minds of landholders, were held at locations across the burnt area to maximise community participation. These field days catalysed a rapid uptake of works on private land.

Landcare groups played a major role in managing sensitive issues such as illegal clearing and in organising 500 volunteers to do everything from fencing to installing nest-boxes. They worked alongside the Goulburn Broken CMA on many of its projects, including erosion and weed control, debris and sediment management, and revegetation. The Goulburn Broken CMA employed nine local people from fire-affected areas to join their three work crews and to advise on a range of local rehabilitation programs.

The Department of Sustainability and Environment and Parks Victoria focused on urgent rehabilitation works prior to the onset of winter and then on fire-sensitive plants and threatened species, including controlling pest plants and pest animals invading areas opened up by the fire and encouraging the recovery of species such as the Leadbeater's Possum.

In the 12 months following the fire, over \$6 million was committed to fire recovery operations. All landholders in the burnt areas were contacted or had access to specialist advice and community support. More than 800 hectares of critical habitat were protected and habitats for 15 threatened species affected by the fire were improved. Weeds were controlled on 400 hectares. The magnitude and rapidity of the response was only possible because of community networks such as Landcare that continue to work tirelessly despite falls in funding. The Upper Goulburn Landcare Network coordinated 790 volunteers from 15 diverse organisations.

The recovery program was funded by Landcare, the Australian Government's Caring for Our Country program and the Victorian Government's Department of Sustainability and Environment and Department of Primary Industries.

The experience following Black Saturday demonstrates how the support given to community groups is returned to the government, and to the community, many times over.

See also the case studies at www.gbcma.vic.gov.au: *Landcare's fencers without boundaries project restores fences in fire-affected area* and *New trailer aids fire recovery at Kinglake*.

Shepparton Irrigation Region Implementation Committee (SIRIC)

Compiled by Carl Walters, Peter Howard, Terry Batey, James Burkitt, Sam Green, Rachael Spokes and Rod McLennan

Committee members: Peter Gibson (Chair), Nick Ryan, Ken Sampson (Executive Officer, passed away October 2009; replaced by Carl Walters), John Gray, Helen Reynolds, Allen Canobie, Roger Wrigley (Deputy Chair), Terry Batey (DPI), James Burkitt (G-MW), Steve Farrell, John Wenske, Rob Steel (DSE).

Background

The Shepparton Irrigation Region Implementation Committee (SIRIC) continues to attract community leaders and benefits from a well credentialed and diverse membership with a wide knowledge base and circle of influence.

Peter Gibson and Roger Wrigley were re-elected as SIRIC's Chair and Deputy Chair for another two-year term. Sadly, long-standing Executive Officer, Ken Sampson, passed away in October (see a tribute inside the back cover) and Carl Walters was appointed to replace him.

SIRIC planned and delivered a \$13 million program in 2009-10, funded by the Victorian and Australian Governments through programs including Our Water Our Future, Water in a Climatically Challenged Environment, Natural Resources Investment Program, and Caring for Our Country. In addition, the program utilised over \$0.7 million of regional funds.

The continued success of SIRIC is due to strong community links, partnerships with other agencies, local, Victorian and Australian Governments, Landcare, Goulburn Murray Landcare Network and via local area planning.

The four program areas overseen by SIRIC are covered by working groups: Farm and Environment; Groundwater and Salinity Management; Waterways and Surface Water Management. The groups comprise agency staff and community members, including representatives from G-MW, water services committees, the Victorian Farmers Federation, local government and environment groups.

SIRIC receives support from an executive support team, and agency staff provide technical input through a technical support committee, the working groups and project teams.

2009-10 performance

The drought continues to have an impact on our works programs, especially the Environmental and Surface Water, Groundwater and Salt Management programs. Funding cuts have limited the Groundwater and Salt and Surface Water Management programs. Farm Program activities have however increased due to the need for landholders to use water more efficiently and to integrate with the irrigation modernisation program.

Collaborations and communities

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 and will underpin future economic growth and regional prosperity, providing confidence for communities that are facing significant challenges because of the drought, and recovering an estimated 225 gigalitres of lost water by 2012, with water savings to be shared equally between irrigators, the environment and Melbourne.
- 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).
- In the latter stages of 2009-10, significant efforts were devoted to developing the On-Farm Irrigation Efficiency Program funding bid, the 'Farm Water Program', and the subsequent business case.
- Irrigators, senior management and technical, environmental and implementation staff are ensuring that both NVIRP and the SIRCIS are seamlessly implemented by providing input into wetland watering plans, farm irrigation assessments, environmental assessments, waterway watering plans, identifying backbones, connection processes, and farm works. Cost-sharing agreements have been developed with NVIRP. 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 Municipal Catchment Coordinator Steering Committee meetings.
- SIRIC supported local government funding applications to the Strengthening Basin Communities Program and, conversely, local government supported the Goulburn Broken CMA's On-Farm Irrigation Efficiency Program (Farm Water Program) funding bid.
- SIRIC provided input into various local government plans including Greater Shepparton City Council's RiverConnect Master Plan, its Kialla Landfill Concept Plan and its Shepparton South East Growth Corridor Development Plan and the Shire of Campaspe Roadside Conservation Strategy.

Works and operations

- Outputs delivered in the SIRIC area are shown in the table in Appendix 3 (page 124).
- Whole farm plans on 212 properties covering 16,018 hectares were completed, including 24 'revised modernised' plans, bringing the total number of whole farm plans under this incentive to 3,904, covering 269,232 hectares or 85.0 per cent of the irrigated area.
- Seventy six reuse systems draining 4,518 hectares were installed, bringing the total number of reuse systems constructed with assistance from this scheme to 625 serving 40,188 hectares.
- Seven automatic irrigation systems were installed under the scheme, serving 472 hectares, bringing the total number of automatic irrigation systems constructed with assistance from this scheme to 149 serving 8,710 hectares.
- Thirty landholders received support to undertake environmental and tree growing projects. They erected 12.96 kilometres of fencing which helped to protect 73.5 hectares of remnant vegetation, three hectares of wetland, 86.9 hectares of tube stock plantings and 24.4 hectares of direct seeding. Over 26,960 plants were planted and 66 kilometres of direct seeding lines were sown.
- Highlights of this year's River health base program and the SIR component of the Goulburn River Large Scale River Restoration Project included 86 hectares of vegetation enhancement and over 600 hectares of exotic vegetation managed along frontages.
- Environmental water was delivered to Reedy (300 megalitres), Black (100 megalitres) and Kinnairds Swamps (700 megalitres) and the Broken Creek.
- Five shallow groundwater pumps were installed and four upgrades were completed, with three new sites in progress. Completed works have produced 1,827 megalitres additional irrigation water and therefore 1,827 hectares of irrigated land have been protected from high watertables.
- Groundwater investigations were completed at 17 sites, with no sites identified as suitable for private pumping. Three investigations are in progress. Twenty three sites are on the newly prioritised waiting list.
- Six kilometres of primary drains and four kilometres of community drains were constructed. These systems will protect a further 725 hectares of productive land.
- An 'environmental water allocation' connecting structure was installed at Kinnaird's Swamp to facilitate more efficient delivery of water from Muckatah Drain.
- Environmental site assessments completed across the Goulburn Murray Irrigation District for NVIRP comprised:
 - 1,780 assessments on meters and 444 on access to the meter sites
 - 478 assessments on channel regulators and 33 on access to the regulators
 - 90 kilometres of channel lining assessments, which equates to 180 kilometres of channel bank
 - 65 connections' business cases.
- *Maps of incentives in the Shepparton Irrigation Region to June 2010* at www.gbcma.vic.gov.au shows where drainage reuse system grants, whole farm plans and automated irrigation grants have been completed.
- See case studies at www.gbcma.vic.gov.au: *Irrigation farm reconfiguration, water savings and revegetation near Barmah* and *Groundwater pump incentive and drainage – Tapping the benefits*.

Planning and responding (includes research and development)

- The SIRCIS continued to be reviewed (final draft is being assessed).
- SIRIC continues to be involved in several external processes:
 - major input continues to be provided into NVIRP (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
 - DSE's review of the Victorian Sustainable Irrigation Program
 - input was provided into the Victorian Climate Change Green Paper, On-Farm Irrigation Efficiency Program, State Planning Policy Framework Review and the draft of Victoria's Biodiversity Strategy 2010-2015
- The Uniform Planning Controls for Earthworks Regulations review is in progress. It is being undertaken with the three Shepparton Irrigation Region municipalities.
- SIRIC provided input into various local government plans, including Greater Shepparton City Council's RiverConnect Master Plan, its Kialla Landfill Concept Plan, its Shepparton South East Growth Corridor Development Plan, and the Shire of Campaspe's Roadside Conservation Strategy.
- Waterways, Surface Water Management, Farm and Environment, and Groundwater and Salinity Management working groups each met regularly to develop works programs, report on progress and address implementation issues. The SIR Wetland Working Group was also coordinated.
- An environmental watering plan for Reedy Swamp has been completed and will be adopted. The plan outlines an improved environmental water delivery mechanism for Reedy Swamp. The original source is to be rationalised as part of modernisation. The result of this plan will see a cleaner and more reliable source of water for the wetland. Improved water quality is vital for the health of the wetland and the flora and fauna that rely on it.
- The Salt and Water Balance Project 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.
- The 'C-Type Project', which investigated options for salinity control of low yielding and shallow aquifers areas in the SIR, was completed.
- SIRIC provided input into the Goulburn Broken Biodiversity Strategy review, with members on the steering and reference committees and provision of formal comments on the final draft.
- A total of 141 whole farm plan certifications were responded to by G-MW.

What's next?

- SIRIC will continue to work closely with NVIRP, especially NVIRP's Technical Advisory Group and the Technical Advisory Committee (Environmental Committee), to ensure that NVIRP's water saving projects complement implementation of the SIRCIS.
- The SIRCIS review is to be completed.
- SIRIC is seeking new fund sources to deliver the irrigation program following completion of the National Action Plan for Salinity and Water Quality and the accompanying withdrawal of State and Commonwealth Government funds. SIRIC is considering ways to build up its budget again to implement the SIRCIS.
- SIRIC will continue to work closely with DSE, NVIRP, G-MW and the North Central CMA to implement the Farm Water Program and to attract further Australian Government On-Farm Irrigation Efficiency Program funds to the Goulburn Murray Irrigation District so that there is integration with irrigation modernisation processes.
- SIRIC is considering the impact of the Northern Victoria Sustainable Water Strategy, 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.
- SIRIC will continue to work closely with the Goulburn Broken CMA regarding the amalgamation of the Goulburn Broken CMA with the North East and North Central CMAs.
- SIRIC will continue to work with the DPI Farm Services Victoria group through its restructure process to ensure that the SIRCIS programs continue to be delivered.
- See also the challenges that apply across both BGIC and SIRIC under 'What's next?' on page 18.

Case study

Farm water program

by Megan McFarlane

Goulburn Broken CMA is part of a consortium that secured \$25.8 million from the Australian Government's \$300 million On-Farm Irrigation Efficiency Program. This funding is for Goulburn-Murray Water Service Area irrigators seeking financial assistance to modernise their farms and will be delivered through the region's Farm Water Program in 2010-11.

Eligible activities for funding include high flow surface irrigation, laser-grading, irrigation tail-water reuse systems, automatic irrigation, and irrigation scheduling.

An Expression of Intent (EOI) process was undertaken in April and May 2010. EOIs were required to demonstrate savings of at least 20 megalitres of water, with a minimum of 50 per cent of water savings being transferred to the Australian Government as an unencumbered permanent water entitlement. The water will be used by the Commonwealth Environmental Water Holder to improve environmental flows in stressed rivers and waterways.

Overall, 179 eligible EOIs were received, totalling more than \$40 million. Given that the flood irrigation component of the Program was significantly over-subscribed, eligible projects were prioritised by best practice and a ballot process overseen by an independent auditor. EOIs that were selected within the available funds were included in the Farm Water Business Plan submitted to the Australian Government in June 2010 for assessment. Funding confirmation is expected in August 2010.

Following completion of the first funding round for the Farm Water Program, including a formal review of the processes involved, further investment will be sought from the Australian Government's On-Farm Irrigation Efficiency Program for the next round. If investment is secured, Round 2 of the Farm Water Program will commence from late 2010 or early 2011.

Other consortium members are the Goulburn Broken and North Central Catchment Management Authorities, Northern Victorian Irrigators Inc., Northern Victoria Irrigation Renewal Project (NVIRP), Department of Sustainability and Environment, Department of Primary Industries, Dairy Australia (including Murray Dairy) and Goulburn-Murray Water.

Farm infrastructure like this automated irrigation pipe and riser are being funded through the Farm Water Program.
Photo: Chris Nicholson, DPI



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	2010	Certainty of rating	Trend
2009-10 performance	Corporate Plan KPIs related to planning and responding (see page 55) 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 91), including an explanation of the decision focus and ratings.

ii Ratings for 1990 have been determined using our understanding in 2010 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 and will outline the priorities of the Northern Rivers Catchment Management Authority. 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. 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' (see page 39).

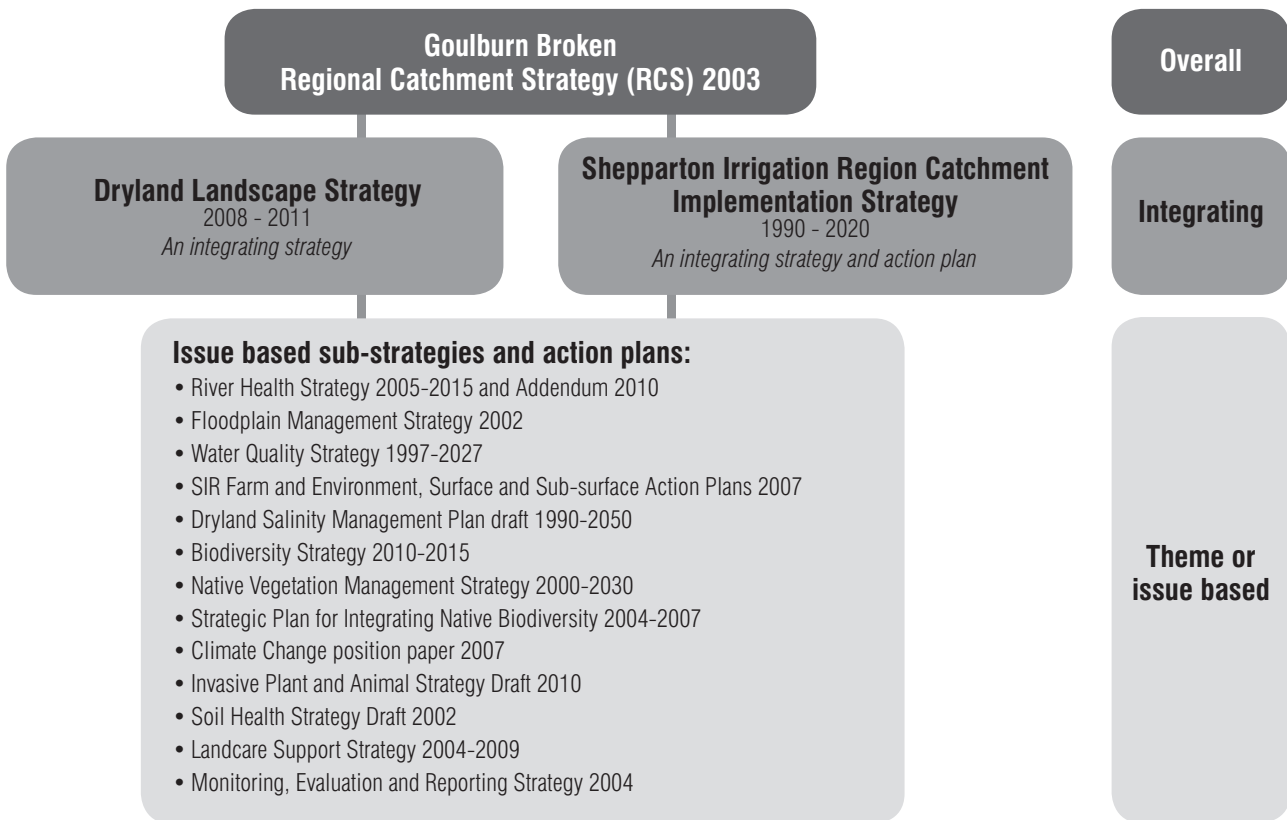
Major strategic references

- 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 20010-1110 to 2014-15
- Goulburn Broken Monitoring, Evaluation and Reporting Strategy 2004

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

Projected changes to the Goulburn Broken Catchment's natural, rural and urban environments are likely to bring profound changes such as more hot days, reduced and erratic rainfall, less snow and frosts, more frequent extreme events like bushfires and storms and extinctions.

While the opportunities are few and the challenges are immense, the Goulburn Broken CMA is taking proactive steps to increase the resilience of the Catchment to these projected changes. Strategic directions outlined in the Goulburn Broken CMA's Climate Change Position Paper 2007 (available on request) are providing a framework for:

- building adaptive capacity into the Goulburn Broken CMA's programs and business
- identifying opportunities and challenges that may result from the carbon market to achieve regional catchment targets
- assisting in building community capacity to respond to climate change challenges and opportunities.

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 91) 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, $Outputs \times Assumptions = Outcomes$, 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.

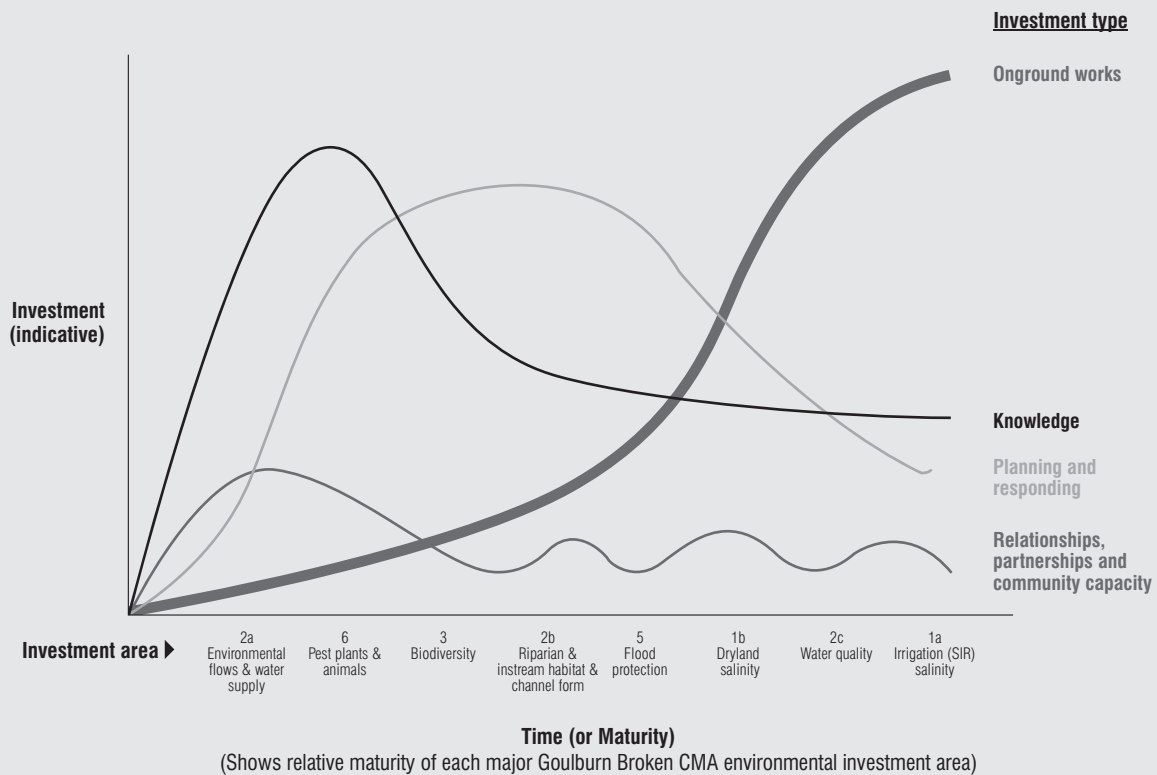
Investment patterns and maturity of approachesⁱ

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



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

2009-10 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 55
Regional Catchment Strategy (updated 2003)	Most actions progressed subject to funding availability.	Achievements report available upon request
Dryland Landscape Strategy	Finalised 2008 and implementation is underway.	See Broken Goulburn Implementation Committee report page 20
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).	pages 93 and 98
	Most recent review in context of declining funding, Northern Victoria Irrigation Renewal Project and probable drying climate. Constantly adapting in response to new information and political climate.	www.gbcma.vic.gov.au
Climate Change Position Paper 2007	Evidence for integrating climate change needs is listed within investment area reports.	Various investment area reports within this Annual Report, especially pages 94, 98, 101, 104, 111, 115, 117, 118 and 121.
Goulburn Broken CMA Monitoring, Evaluation and Reporting Strategy 2004	Actions 90 per cent completed. Review and likely renewal in 2010-11.	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 prepared for release in July 2010.	See Investment area 3 – Biodiversity page 113
River Health Strategy Addendum 2010	Addendum developed.	See Investment area 2 – River health page 101
Goulburn Broken Invasive Plants and Animal Strategy	Strategy drafted; will be finalised in the second half of 2010. This strategy will set the direction and guide 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 121

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.
- 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 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 Victorian Catchment Management Council, which has devolved this responsibility to DSE. The update was due in 2008 and it is now expected to be in 2012. 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.

- The Government's *Securing Our Natural Future*, a white paper for land and biodiversity at a time of climate change, signals institutional change with the amalgamation of fifteen agencies including catchment management authorities into five new catchment authorities. The Goulburn Broken CMA will be working to ensure that its evidence-based, strategy-driven approach to natural resource management is continued into the new Authority. This will include updating the Regional Catchment Strategy, which is due for completion in 2012. The completed strategy will reflect:
 - Victorian Government's *Securing Our Natural Future*
 - the Royal Commission into Victoria's Bushfires (report to be delivered to the Governor of Victoria in July 2010)
 - 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?).
- Goulburn Broken CMA was allocated \$5 million in 2009 for bushfire recovery by the Australian Government over two years and \$1.5 million by the Victorian Government and the response is well underway.
- Implementation of the farm modernisation program and effective links to the Northern Victoria Irrigation Renewal Project (NVIRP)
- Implement the updated Goulburn Broken Biodiversity Strategy.
- A strengthened duty of care approach to managing natural resources is being explored because it has the potential to provide greater certainty for land managers while achieving locally determined levels of resilience for communities and natural resources.
- Salinity targets continue to be reviewed as the threat of salinity is likely to be reducing as a result of drier conditions and government support for salinity management is declining dramatically.
- Minimise transaction costs as demands are increasing from funding process changes.
- Implement Northern Region Sustainable Water Strategy and implement and contribute to development of the Murray-Darling Basin Authority's Basin Plan (including sustainable diversion limits).
- Implications of the National Climate Change Adaptation Risk Assessment will be considered further.
- Implement Goulburn Broken CMA's statutory responsibilities and new legal liability under the new Planning and Environment Act.
- Winton Wetlands will continue to be rehabilitated.
- DSE is developing headline themes under which each catchment management authority is providing data to improve consistency in annual reporting across Victoria (see page 48). We will need to explore how reports on these themes relate to the regional plans and strategies already prepared and to existing data capture systems.

Environmental footprint

Compiled by Kate Pendergast and Fleur Baldi

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

Decision focus ⁱ	Examples of evidence used to inform decisions	1990 ⁱ	Certainty of rating	2010	Certainty of rating	Trend
2009-10 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 2010)	n.a.		On target	High	● ⁱⁱⁱ
Catchment 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 91), 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 2010 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

After minimising the environmental impacts of its workplace for several years, the Goulburn Broken CMA formalised its approach 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 have been guided by the Goulburn Broken CMA Environmental Management Policy which was endorsed in 2007.

Government investment, \$000

2007-08	2008-09	2009-10	2010-11 ⁱ	Trend
6	15	6	20	●

i Forecast is based on funding advice at August 2010

Major strategic references

- Goulburn Broken CMA Reducing our Footprint Action Plan 2007
- Energy Audits of Goulburn Broken CMA 2008
- ResourceSmart

Key activities for Office and Sustainability Manager

Key responsibility area	Key activities
Identify and implement best practice tools and supporting resources to promote a consistent approach to delivering, monitoring and reviewing organisational environmental sustainability performance	<ul style="list-style-type: none"> Research sustainability best practice and bring relevant information and opportunities back to the Goulburn Broken CMA Convene relevant working parties to support the development and implementation Initiate and deliver a range of projects to support sustainability objectives and targets Liaise with consultants as part of the project delivery and coordination
Record and collate data prepare reports and communication on the progress and achievements of the Goulburn Broken CMA against environmental targets	<ul style="list-style-type: none"> Prepare strategic and action plans for the environmental sustainability program as per govt requirements Develop and implement appropriate systems for recording data relevant to measuring environmental objectives Monitor and report on progress Prepare information in a range of mediums for informing staff and stakeholders of environmental progress Prepare annual report submission for the organisation's environmental sustainability program

2009-10 performance

The Action Plan (2008) and Energy Audit (2008) identified that initiatives that have a payback period of less than three years would be implemented. All such actions were implemented in 2009. The option of water tanks and floor insulation for the Shepparton office were explored in mid-2009 but on a cost-to-benefit ratio cannot proceed in the short-term.

The Reducing our Footprint program continued to be a voluntary program not integrated in the accountabilities of a position within the Goulburn Broken CMA. The ability to move beyond awareness and implement a systematic approach to measuring environmental performance has been identified as requiring appropriate resourcing. The position of Office and Sustainability Manager has been created with recruitment underway as at June 2010. Key responsibility areas and activities of the position are outlined in the table on the previous page.

Actions 2009-10

Priority	2009-10 progress
Office energy usage ⁱ	Maintained reduced energy usage targets achieved in 2008-09
Develop monitoring and reporting framework	Progressing
Expand program into field operations ⁱⁱ	Progressing
Education and awareness activity with staff ⁱⁱ	IT department continue to promote responsible recycling of IT hardware, printer cartridges and mobile phones Composting bins in staff kitchens Promoting shared travel arrangements

i From Energy Audits for Goulburn Broken CMA 2008

ii From Reducing our Footprint Action Plan 2007

Strategy implementation progress

- All achievements from initiatives implemented in 2008 and 2009 have been maintained which reflects the commitment of staff and management.

Organisational condition

- The Goulburn Broken CMA continues to only have sedan vehicles that are diesel, liquefied petroleum gas or four cylinders with a maximum allowable carbon dioxide emission of 240 grams per kilometre, which places Goulburn Broken CMA vehicles in the best 20 per cent for carbon dioxide vehicle emissions.
- The development of a portal electronic document management system has further reduced printing.
- The energy consumption has been maintained at the reduced 2008-09 levels.

What's next?

- Appointment of the Office and Sustainability Manager.
- Investigate subscription to Green Fleet Program for vehicle emission offsets.
- Learn from other catchment management and water authorities in developing and implementing their greenhouse strategies.
- Compiling and implementing an environmental practices handbook for field operations and contractors.
- Revise the Strategy and Action Plan for 2010.
- Australian made Toyota Camry Hybrid's will be purchased by 2012 to meet Government targets.

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	2010	Certainty of rating	Trend
2009-10 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	Surveys of strengths of relationships Memoranda of understanding Uniform regulations developed	Satisfactory	Medium	Satisfactory	Medium	●

i See Appendix 1 for notes on the analytical framework (page 91), 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 small to medium 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, including in the office, in the field and in contractor operations. Comprehensive policies and procedures were reviewed and refined during 2009 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, \$000

2007-08	2008-09	2009-10	2010-11 ⁱ	Trend
4,200	4,346	4,402	4,978	●

i Forecast based on an estimated 4 per cent cost and 10 per cent staff numbers increases on 2009-10 figures.

Major strategic references

- Goulburn Broken Corporate Plan 2009-10 to 2013-14
- *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

2009-10 performance

The relative stability of the workplace has been a major contributor to the success of natural resource management in the Catchment since the inception of the Goulburn Broken CMA in 1997. However, 2009-10 marked significant change.

Senior respected manager, Ken Sampson, passed away suddenly in October; new Chief Executive Officer, Chris Norman, was appointed and the catchment management authority amalgamations were announced in December; and the Goulburn Broken CMA-led 'Farm Water Program' was awarded \$25.8 million under the Australian Government's On-Farm Efficiency Irrigation Project in March. These events resulted in greatly increased recruitment activity and an emphasis on organisational and personal health and wellbeing.

Recruiting highlights

- Building on the success of the Drought Employment Program, the Goulburn Broken CMA saw the opportunity for a similar program to support the rebuilding and regeneration of the areas devastated by the Black Saturday bushfires. The Goulburn Broken CMA commenced a 12 month Fire Recovery Employment Program in the Upper Catchment in January, which will employ 15 staff and one coordinator full time.
- The Goulburn Broken CMA created the Land and Biodiversity Unit to ensure alignment with State Government policy, following release of Victoria's white paper on land and biodiversity at a time of climate change.

Organisational and personal health and wellbeing

- 'The Health of the Catchment' theme for our annual two-day staff conference and workshop in November included the health of the organisation and of staff. With the assistance of an external facilitator, the 43 staff in attendance reflected on personal goals, their ability or 'health' to achieve those goals, and their role as part of the Goulburn Broken CMA team.
- Approximately 60 per cent of staff accepted the Goulburn Broken CMA's offer to undergo free health and skin checks in March, and in April, flu vaccinations were offered to all staff.
- An Employee Assistance Program was introduced in May, offering a variety of free counselling and support services to employees and their families.
- Information promoting health awareness and positive interventions is electronically circulated to all staff. The introduction of the Health@Work initiative was not to rectify an area of concern but rather to advance what we currently see as a positive and healthy workforce.
- Absenteeism for 2009-10 decreased from 1.9 to 1.7 per cent.
- Results from the Victorian public sector People Matter survey conducted in May were again excellent with our reported results consistent with and in some areas improving on the excellent results recorded in 2008.
- Monthly leave reporting to management began in January, encouraging awareness in managers of the benefits of leave planning for staff and the financial workplace culture benefits for the organisation. The reporting includes leave balances that are outside targets and leave-usage trends.
- Revised organisational values, which staff contributed to at the staff conference in November, were endorsed and then published for staff awareness in February. Safety is one of these seven values, reflecting and reinforcing the Goulburn Broken CMA's commitment to all personnel, including Board directors and staff, of a healthy and safe workplace. We vigorously protect and look out for the safety and wellbeing of ourselves, our colleagues and our workers.

Personal development, training and contributions

- The inaugural 'Ken Sampson Fairley Leadership Scholarship' was awarded to Lisa Hawken, a community member whose start up business 'Malijo Sustainability' and personal values align with the values of the Goulburn Broken CMA and of the Scholarship. The Scholarship enables participation in the 12-month Fairley Leadership Program.
- The Goulburn Broken CMA was well represented as a guest of a range of overseas study and conference tours:
 - the Chief Executive Officer, Bill O'Kane, travelled to China in October
 - the Strategic River Health Manager, Wayne Tennant, again visited China in April
 - the Indigenous Natural Resource Management Facilitator, Neville Atkinson, attended a United Nations forum in New York (see the box on this page)
 - the Authority supported the newly appointed Landcare Corporate Partnerships Facilitator, Karen Brisbane on a study tour of landcare participation to the United States in September.
- Three undergraduate students from different environmental degree programs and universities undertook placement programs with the Goulburn Broken CMA, ranging from two to eight weeks. Three Year-10 school students also undertook work experience with the Goulburn Broken CMA.

Occupational health and safety

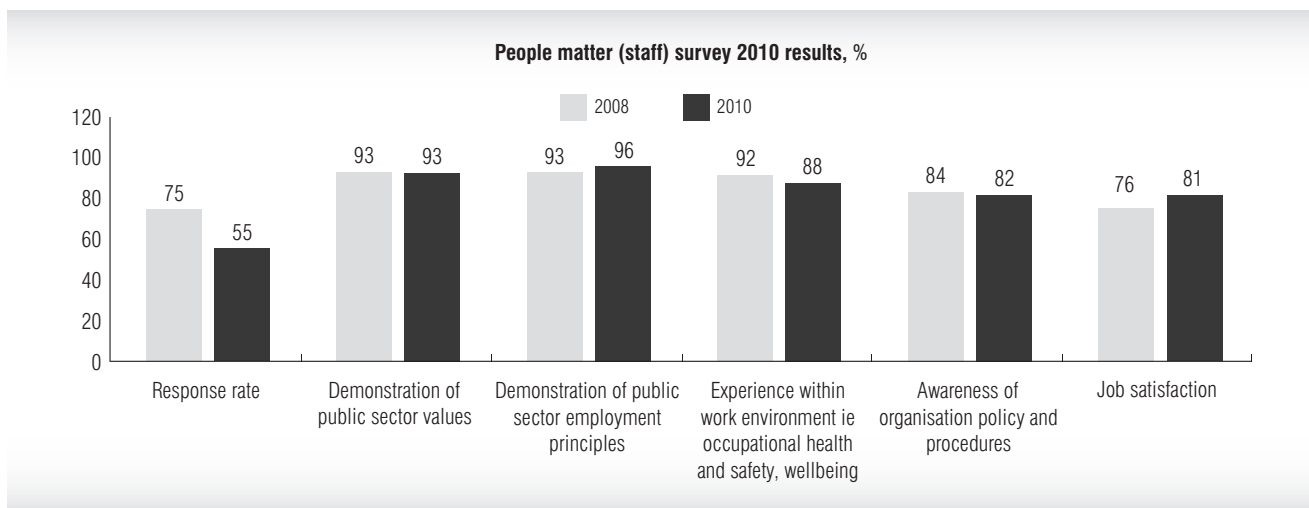
- PKF Chartered Accountants and Business Advisers reviewed the occupational health and safety framework of the Goulburn Broken CMA's Occupational Health and Safety Management System in 2009. The Goulburn Broken CMA continues to address recommended management actions suggested by PKF in areas that are not achieving compliance with minimum standards.
- The Goulburn Broken CMA Occupational Health and Safety Committee's term expired in December, and all positions were filled for the following two-year term.
- A new designated workgroup structure was formed during the year, following consultation with Goulburn Broken CMA employees. The agreed model consists of three designated workgroups representing the functional staff areas such as administration. Each designated workgroup has an employee-elected health and safety representative who was re-elected for a further three years during.
- 'Working alone procedures' were reviewed at length to better address the specific needs and risks to staff. An emergency position indicating radio beacon (EPIRB) was purchased for each office. Staff were trained in its use in May.

System Improvements

- We started preparing for the 2011 amalgamations, compiling human resources data and status reports as part of the due diligence process.
- The management of payroll data was updated and improved, with long service leave entitlements to be managed electronically within the Meridien payroll system.

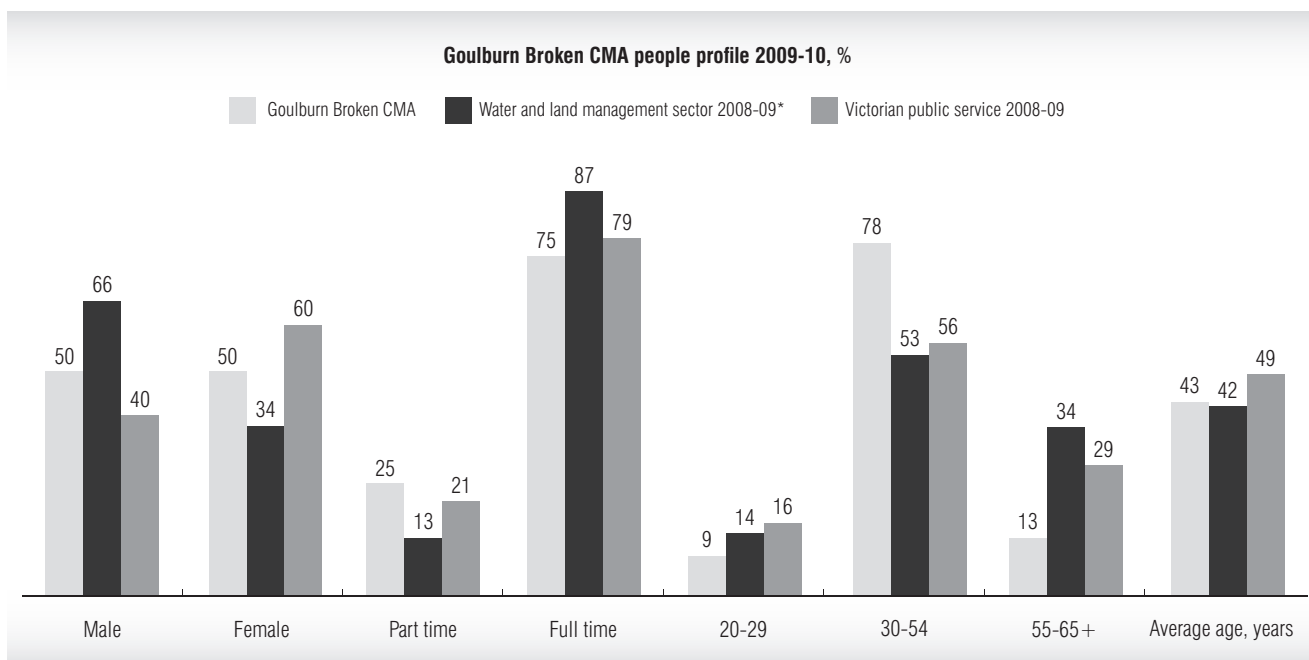
Indigenous Facilitator attends UN Forum in New York

The World Bank invited representatives of the Yorta Yorta Nations Climate Change Group to attend the ninth annual session of the United Nations Permanent Forum on Indigenous Issues in New York in April 2010. Neville Atkinson, Yorta Yorta Nations Aboriginal Corporation Chair and Goulburn Broken CMA's Indigenous Facilitator, accepted the invitation after funding was obtained from the Commissioner for Environmental Sustainability, the Myer Foundation, and the Monash Sustainability Institute. The Forum is an advisory body to the Economic and Social Council, with a mandate to discuss indigenous issues related to economic and social development, culture, the environment, education, health and human rights.



Occupational health and safety statistics summary

	2008-09	2009-10
Total incidents, no.	8	9
Days lost	0	1
Hazards reported, no.	2	2
Lost time injury frequency rate	0	15
Occupational health and safety committee meetings (excluding tool box meetings), no.	6	5



* 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 ⁱⁱⁱ	Victorian public service 2008-09	Comments
	2006-07	2007-08		2008-09		2009-10				
		no.	%	no.	%	no.	%			
Gender and employment typeⁱ										
Male	-	27	51	28	51	28	50	66	40	Goulburn Broken CMA results more consistent with all Victorian workforces where 45% are female
Female	-	26	49	27	49	28	50	34	60	
Part time	-	13	25	12	22	14	25	13	21	
Full time	-	40	75	43	78	42	75	87	79	
Part time male	1	2	4	1	2	1	2	5	10	
Part time female	9	11	21	11	20	13	23	29	28	
Full time male	26	25	47	27	49	28	50	95	90	
Full time female	15	15	28	16	29	14	25	71	72	
<i>Total employees</i>	51	53	100	55	100	56	100	100	100	
Total full time equivalentsⁱ		48.3		50.4		49.7		-	-	
Employment statusⁱ										
Fixed term	17	18	34	20	36	20	36	13	16	Tenure of position and job security has been maintained into the amalgamation period
Ongoing	34	35	66	35	64	36	64	87	84	
Employment Category										
Executive Officers	-	-	-	2		2		-	-	
Senior Managers	-	-	-	7		7		-	-	
Admin Officers	-	-	-	31		33		-	-	
Field Staff	-	-	-	15		14		-	-	
Age profile (years, by tally)ⁱ										
20-24	1	1	2	0	10	0		14	16	Healthy profile for a mature organisation with low turnover.
25-29	6	4	8	6		5	9			
30-44	26	25	47	26	74	26	46	53	56	
45-54	13	16	30	17		18	32			
55-59	4	3	6	2		4	7			
60-64	1	4	7	3	16	2	4	34	29	
65+	0	0	0	1		1	2			
Average age, years		42		43		43		42	49	
Years of serviceⁱⁱ										
12 months or less	11%	-	11	7	12	4	7			The workforce remains stable with key knowledge and expertise remaining in the organisation. Current retention and succession plans are achieving objectives.
1-3 years	32%	-	15	14	24	10	18			
3-5 years	14%	-	28	9	15	15	27			
5+ years	43%	-	46	29	49	27	48			
Average length of service, years		5.39 yrs		5.82 yrs		7.2 yrs		6 yrs	-	
Salary distribution										
<\$40,000	-	10	19	9	16	9	16	6	12	Salaries to be escalated by 4% upon implementation of Enterprise Agreement
\$40,000 – 59,999	-	23	44	23	42	19	34	44	35	
\$60,000-79,999	-	10	19	12	22	15	25	29	38	
\$80,000+	-	10	18	11	20	13	23	21	15	
Average salary	-	-	-	\$67,608	-	\$68,729		-	-	
Qualifications^{iv}										
Year 12 or less	-	-	-	-	-	13	22	-	16	Degree qualified staff are consistent with the selection requirements for the range of NRM technical project management roles required by CMAs
Certificate	-	-	-	-	-	5	8	-	12	
Advanced Diploma/Diploma	-	-	-	-	-	5	8	-	11	
Degree	-	-	-	-	-	28	47	-	30	
Postgraduate Degree/Graduate Diploma	-	-	-	-	-	9	15	-	31	
Turnover (total)	19%	5	9	5	9	4	7	-	-	Continued stable workforce consistent with views expressed in People Matter Survey where only 21% of staff think about leaving the Goulburn Broken CMA
Turnover (ongoing staff only)	-	-	-	-	-	1	2	8	9	
Exit interviews completed	-	3	60	4	80	1	33	-	-	Interviews offered to all exiting staff but is voluntary
Absenteeism	2.1%	-	1.8	-	1.9	No	1.7	-	-	Supports job satisfaction results in People Matter Survey with low absenteeism
Training expenditure (% of salary budget)	1.5%	\$102,000	2.7	\$115,000	2.4	\$103,000	2.3	-	-	Consistent expenditure across short course training, conferences and accredited programs

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

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

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

iv Includes all employees for 2009-10 year

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 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 7 per cent in 2009-10, which is within our target range of 7-10 per cent. This is pleasing given the significant changes during the year.

- 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 47 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 project management roles within our organisation.
- Industrial issues did not escalate and were resolved to the satisfaction of staff and management.

What's next?

- There will be a focus on amalgamation issues as the North East, North Central and Goulburn Broken Catchment Management Authorities transition to become the new Northern Rivers Natural Resources and Catchment Authority by 1 July 2011.
- Workforce health initiatives will be further integrated as part of the commitment to health and wellbeing.

Our staff

A list of all staff employed by the Goulburn Broken CMA for all or part of the 2009-10 is on the inside of the back cover.

Goulburn Broken CMA Management Team and Unit Managers



Management Team (left to right): Guy Tierney, Jason Head, Carla Miles, Wayne Tennant, Megan McFarlane, Richard Warburton, Rosalba Camera, Mark Turner, Kate Pendergast, Chris Norman, Annie Squires, Carl Walters, Amanda McClaren. Photo: Fleur Baldi, Goulburn Broken CMA. Absent: Stan Gibney, Neville Atkinson and Geoff Earl

Goulburn Broken CMA Management Team and Unit Managers

Corporate

Amanda McClaren, BAppSc (Photography) (Hons) – Communications and Marketing Manager (from 15 April 2010)

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.

Bill O’Kane, BSc, GAICD – Chief Executive Officer (until December 2009)
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.

Chris Norman, BAppSc, Grad Dip (Rural Resource Management), Dip (Frontline Management), GAICD – Chief Executive Officer (from 15 December 2009)
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.

Rosalba Camera, AssDip Frontline Man’t, Cert IV Assessment and Workplace Training – 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, MIIA – 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.

Land and biodiversity

Carla Miles, BAppSc (Parks, Recreation & Heritage) (Hons), Certificate II Bush Regeneration – Biodiversity Manager (4 January 2010 to current)
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

Sharon Lewis, BSc, BAppSc (Hons) – Dryland Manager (until 2 October 2009)
Provides executive support to Broken Goulburn Implementation Committee and oversees implementation of Dryland Landscape Strategy, managing the Dryland Team (responsibilities include Landcare, dryland salinity, local government and community engagement programs).

Tim Barlow, BSc – Biodiversity Manager (until 4 January 2010)
Manages and coordinates biodiversity program, including investment and strategic planning, monitoring and reporting and integration of climate change responses.

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

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) – Statutory Planning and 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 (From 22 February 2010)
Oversees the river health implementation programs, leading a team of field staff.

Neville Atkinson – Indigenous 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 – Shepparton Irrigation Region Implementation Committee Executive Officer (vice River Health Implementation Manager) (From 12 October 2009)
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.

Ken Sampson, BAgSc, MAgSc – Shepparton Irrigation Region Implementation Committee Executive Officer (until 8 October 2009 when he passed away)
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.

Business development

Katie Warner, BAg (Hons), MPPM, DipBus (Frontline Management) – Business Development Manager (From 31 May 2010)
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.

Megan McFarlane, BAgSc (Hons), MNatRes, GAICD – Business Development Manager (Until 18 April 2010)
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.

Farm water

Bill O’Kane, BSc, GAICD – Interim Farm Program Leader (from 1 January 2010)
Responsible for establishing, leading and managing the development and delivery of the Farm Water Program to achieve the required water saving objectives. Provides high level advice and guidance to the Project Control Board and CEO ensuring the approach, methodology and outcomes are consistent with the program objectives and funding.

Megan McFarlane, BAgSc (Hons), MNatRes, GAICD – Farm Water Project Manager (From 21 April 2010)
Responsible for supporting the funding, investment and planning processes and associated delivery of the Farm Water Program. Provides high level advice and guidance to the Farm Water Program Leader, 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	2010	Certainty of rating	Trend
2009-10 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	● ^{vii}
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 91), including an explanation of the decision focus and ratings.
 ii Ratings for 1990 have been determined using our understanding in 2010 of what the situation was like in 1990.
 iii See Corporate Plan performance areas, indicators, targets and progress table page 55.
 iv See performance of statutory responsibilities as a Victorian State Authority and Employer page 43.
 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:

- 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.

Goulburn Broken CMA's legislative and funding context

The Goulburn Broken CMA is established under the *Catchment and Land Protection Act 1994 (CaLP Act)*, and has additional responsibilities for waterway management, floodplain management and regional drainage functions under Part 10 of the *Water Act 1989*. The responsible Minister for the reporting period is Gavin Jennings MLC, Minister for Environment and Climate Change.

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

Government investment, \$000

2007-08	2008-09	2009-10	2010-11 ⁱ	Trend
1,700	1,519	993	1,003	●

i Forecast based on funding advice at July 2010

Major references

- Goulburn Broken Catchment Management Authority Corporate Plan 2009-10.
- DSE Assessment of Corporate and Statutory Costs 2005.
- Governance Guidelines for DSE Portfolio Statutory Authority Board.

Costs that enable the Goulburn Broken CMA to fulfil its corporate and statutory obligations are funded from a direct corporate allocation plus interest earned with the balance recovered from a variable corporate charge to internal only projects of up to a maximum of 6.2 percent. Corporate charges are not applied to funding to community groups or other partners.

Goulburn Broken CMA received \$29.9 million from regional, State and Commonwealth Government sources in 2009-10. 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 co-operation 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 appointed by the Minister for Environment and Climate Change. They 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.

The Chairman is ex-officio of the both Committees and is able to attend all meetings.

Audit, Risk and Compliance Committee

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

- Eileen Curtis (Chair) • Murray Chapman • Terry Court
- John Pettigrew • Michael Hall (Chartered Accountant with MB&M – Consultant, until 7 December 2009)

Remuneration Committee

- Peter Ryan (Chair until 13 May 2010) • Lyn Gunter
- Frank Whitford (Chair from 14 May 2010) • 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.

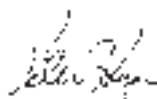
Risk management

The Authority 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 Catchment Management Authority has risk management processes in place consistent with the Australian/New Zealand Risk Management Standard 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 Catchment Management Authority has been critically reviewed within the last 12 months.



Peter F Ryan

Acting Chair
24 August 2010

Board directors

for the financial year ended 30 June 2010



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 (Acting Chair), John Pettigrew and Frank Whitford. Absent: Huw Davies.

Peter Ryan – Acting Chair (Cosgrove South)

(from 1 April 2010)

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, Chair of the Environmental Farmers Network, a member of Landcare and the Victorian Farmers Federation. John was previously a director of Goulburn-Murray Water, SPC Limited and the Goulburn Broken Catchment and Land Protection Board. 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.

Dr Huw Davies – Chair (Benalla)

(Resigned 31 March 2010)

Huw has over 20 years senior executive experience in the private sector, covering a diverse range of industries in Australia and overseas, after having started his career as a geologist. Huw has 15 years' experience as an executive and non-executive director of public, private and government entities. He is the Administrator of the State Electricity Commission of Victoria and Chair of its Executive Committee, and is a non-executive director of Boom Logistics Limited.

Russell Pell (Wyuna)

Russell is a member of the Murray Darling Basin'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 Fletcher Jones Australia. He was also Managing Director of Mitre 10 Australia and the Sportgirl/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 (12 held)	Audit, Risk and Compliance Committee (6 held)	Remuneration Committee (5 held)
Huw Davies	9 (of 9)	-	3 (of 3)
Murray Chapman	12	6	-
Terry Court	10	5	-
Eileen Curtis	10	6	-
Lyn Gunter ⁱ	7	-	2
Russell Pell	10	-	5
John Pettigrew	12	5	-
Peter Ryan	12	-	5
Frank Whitford	12	-	5

i Lyn Gunter was on approved leave of absence.

Compliance

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

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

Act or policy	Board's major tasks	2009-19 issues and status
Statutory Authority		
Catchment and Land Protection Act 1994	Prepare, coordinate, monitor and review of Regional Catchment Strategy.	Interim Review to be finalised June 2011. Currently reviewing sub-strategies.
	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."	Annual Report on schedule. Victorian Catchment Management Council annual report on schedule.
	Corporate Plan to be submitted to Minister under the CALP Act by 30 April	Submitted to Minister by 30 April 2010. Approved under Section 19C (3) of the CALP Act.
	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 or officers of the Authority and are available for inspection.
Water Act 1989	Corporate Plan available for inspection.	Copy is available for inspection during business hours and can be accessed by visiting www.gbcma.vic.gov.au .
	Review funds at each (monthly) Board meeting.. Policy for investment as per the Trustee Act 1958.	During the year, Goulburn Broken CMA continued to invest funds with TCV at call and on term deposits at competitive rates and in line with DTF's policy on Centralisation of Borrowing and Investment Activities.
	Submit statement of borrowings. Review borrowings at each (monthly) Board meeting. Finance leases are borrowings and subject to Treasurer's approval.	Included as part of Corporate Plan.
	Meeting Procedures of Authorities.	Minutes are only available through application under Freedom of Information. Goulburn Broken CMA has adopted Governance Guidelines for Statutory Authority Board Members, DSE 2004. Code of conduct for public sector employees adopted.
	Waterway management responsibilities	Goulburn Broken CMA was established as a body corporate under the Catchment and Land Protection Act and then established as an Authority under the Water Act and delegated waterway management, floodplain management and drainage functions under Part 10 of the Water Act.
Public Administration Act 2004	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.
Environmental Protection and Biodiversity Conservation Act 1999	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. Although the Goulburn Broken CMA has not referred any projects to the Minister in its own right, projects associated with the Minister's decommissioning of Lake Mokoan, the Deakin Drain 16 Extension project and Broken Creek surface water management were all referred

Act or policy	Board's major tasks	2009-19 issues and status
Statutory Authority		
Freedom of Information Act 1982	<p>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:</p> <ul style="list-style-type: none"> - application fee of \$23.90 which is non-refundable and an access cost which covers the cost to Authority for providing the information. 	<p>The Freedom of Information Act 1982 allows members of the public a right of access to documents held by the Goulburn Broken CMA.</p> <p>Freedom of Information requests are made in writing describing the documents requested and including payment of the \$23.90 application fee. Further charges may be payable. Freedom of Information fees and charges are not subject to GST.</p> <p>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@gbcma.vic.gov.au. Three applications were received during the year.</p> <p>One was not accepted and the applicant was requested to resubmit the applications with the appropriate fee.</p> <p>One was released in part due to exemptions under legal, and privacy matters as well as classification as an internal working document.</p> <p>One recent application was negotiated with the applicant and amended. Full release of documents will be made except for non-disclosure of personal information and after individuals named in documents to be released being advised of their review rights.</p>
Whistleblowers Protection Act 2001	Report actions in Annual Report. Report actions at each (monthly) Board meeting..	<p>No issues reported.</p> <p>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 details on page 46.)</p>
Planning and Environment Act 1987	Goulburn Broken CMA is the Floodplain Management Authority under Part 10 of the Water Act 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 (around one thousand per annum).
	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 was provided as appropriate.
Privacy Act 2000	Ensure details of individuals are protected.	Goulburn Broken CMA has developed a privacy policy (in accordance with the Act) on how information is stored and under what circumstances it can be accessed or released to third parties.
Flora and Fauna Guarantee Act 1988	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.

Act or policy	Board's major tasks	2009-19 issues and status
Statutory Authority		
Environmental Protection Act 1970	<p>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.</p> <p>Outlines CMA's roles with respect to set goals, priorities and targets.</p> <p>Refers to water allocations and environmental flows.</p> <p>Relates to responsibilities of various agencies for ensuring sustainable agricultural activities with the catchment</p> <p>Relates to the management of irrigation channels and drains.</p> <p>Refers to vegetation protection and rehabilitation.</p>	<p>A process was initiated to conduct priority ecological risk assessment, using Guidelines for Environmental Management Risk-based Assessment of Ecosystem Protection to determine further work required.</p> <p>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.)</p>
Forest Act 1958	Liaise with DSE as required.	Waterways in areas managed by DSE under the Act, the Authority complied with elements of the code which deal with access to waterways and crossings.
Financial Management Act 1994	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.
Cultural Heritage Act 1986	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.	<p>Goulburn Broken CMA complied with requirements. The Authority is committed to policies, programs and strategies aimed at delivering culturally appropriate services to all Victorians.</p> <p>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 the Goulburn Broken Catchment Management Authority deliberations.</p>
Building Act 1993	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 implement and apply this principle in its business undertakings.
Marine Act 1988	The Goulburn Broken CMA is the Boating Authority for the Goulburn River downstream from the Eildon Weir pondage and upstream of Hughes Creek.	<p>Goulburn Broken CMA reviews boating speed limits and audits signage and access in its area of responsibility. Published the Boating Guide for the Goulburn River.</p> <p>Erected signs at boat ramps on the river advising boaters of their obligations.</p>
Country Fire Authority Act 1958	Work with other related organisations to assist in the control, prevention and suppression of fires within the Catchment.	Goulburn Broken CMA has developed policies particularly relating to waterway operations which 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.	Nil for contracts over \$1 million.

Act or policy	Board's major tasks	2009-19 issues and status
Employer		
Workplace Relations Act 1996	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. These policies are available on the Authority's portal (intranet). Current agreement - Professional, Administrative and Technical Staff Enterprise Agreement 2009-2012 has been renewed and is awaiting ratification.
Equal Opportunity Act 1995	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 49 per cent are female and 51 per cent male.
Long Service Leave Act 1992 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.
Occupational Health and Safety Act 2004, amended 2005	Report Occupational Health and Safety issues at each (monthly) Board meeting and in Annual Report.	Goulburn Broken CMA has comprehensively reviewed its policies and procedures and inducted all staff. Manuals are in place and made available for 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 on the portal (intranet).
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 Australian/NZ standard. Attestation that the Goulburn Broken CMA has risk management processes in place consistent with the Australian/New Zealand Risk Management Standard has been made by the Chair of the Authority.
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 Authority has established a Register for employees to register, gifts, benefits and hospitalities offered whether accepted or not. A policy on this issue has been developed approved by the Board.

Details of compliance with Whistleblowers Protection Act 2001

The Authority has established a Whistleblowers Protection Policy in line with its obligations under the *Whistleblowers Protection Act 2001*.

a 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:

- Protected Disclosure Coordinator
Vicki Mackenzie (03) 5820 1100
- Protected Disclosure Officers
Carl Walters (03) 5820 1100
Wayne Tennant (03) 5820 1100
Peter Howard (03) 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.

b 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 Authority operates the current procedures in line with its Whistleblowers Protection Policy.

c 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 the 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
- forward all disclosures and supporting evidence to the Protected Disclosure Coordinator.

d Protected Disclosure Coordinator

The Protected Disclosure Coordinator has a central clearinghouse role in the internal reporting system. The Protected Disclosure Coordinator 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
- liaise with the Chief Executive Officer of the public body.

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
- further 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
- 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

The '2009-10 Annual Report Guidelines for CMAs and the VCMC' mandates, for the first time, that 'management summary' and 'catchment condition statement' sections be included in this Annual Report to fulfil the statutory requirements of section 19B of the *Catchment and Land Protection Act 1994*. The format follows a natural resource management template that was prepared by DSE, and is an 'executive summary' of a report that is expected to be completed in late 2010.

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 mandated 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
Community capacity	Collaborations and communities	17
	Planning and responding	26
Biodiversity	Biodiversity	112
Inland aquatic ecosystems	River health	101
Land health	Salinity	93, 98
	Pest plants and animals	121
Environmental stewardship	River health	101
	Biodiversity	112
Marine biodiversity	Not applicable	-
None applicable	Human resources	33
None applicable	Environmental footprint	31
None applicable	Flood protection	118

Management summary

Biodiversity

Substantial levels of onground works were again achieved through a range of projects such as the Threatened Grassy Woodlands project and environmental grants, including fencing of 1,347 hectares of remnant vegetation and improvement of 715 hectares of habitat via stewardship agreements. Although achievements were generally on target, they were significantly less than those for previous years, mainly because the Drought Employment Program could not be continued.

In the upper Catchment, a major emphasis for biodiversity management continued to be on addressing the impacts of the 2009 Black Saturday bushfires, which burnt over a third of the Catchment's woody vegetation. More than 800 hectares of critical habitat were protected and habitats for 15 threatened species affected by the fire were rehabilitated. Weeds were controlled on 400 hectares.

The significance of the impact of the fires, and of our recovery efforts, on biodiversity is not yet known.

The Goulburn Broken CMA's Draft Biodiversity Strategy 2010–2015 was prepared and the profile of biodiversity continued to be raised with partner agencies and the community via programs such as conservation management networks.

The Goulburn Broken CMA supported proclamation of a network of national parks along the Murray by the Minister for Environment and Climate Change, Gavin Jennings MLC, in June 2010, which followed Victorian Environmental Assessment Council's recommendations from the River Red Gum Forests Investigation. This will have significant impacts on biodiversity and its management along the Murray. Traditional Owners will be more closely involved in management.

Inland aquatic ecosystems

Environmental flows and water supply

Continuing low inflows caused by ongoing drought conditions are degrading general river health and resulting in localised water quality problems. The Goulburn Broken CMA, in partnership with other government agencies, is responding by delivering environmental water and translocating and reintroducing native fish populations.

Key lower Goulburn River floodplain wetlands and the lower Broken Creek were again the focus of environmental water delivery.

Riparian and instream habitat and channel form

Significant effort and resources are being invested in recovering damage along river frontages caused by the February 2009 Black Saturday bushfires. The Goulburn Broken CMA, in partnership with the community and government agencies, have focused on a range of natural resource and community based activities, including fencing, revegetation, pest plant and animal control, control of sediments, water quality monitoring and employment.

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.

Works to improve instream habitat were commissioned on the Broken River, Goulburn River and Broken Creeks.

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.

Slackwater habitats were monitored on the Broken River to assess the effectiveness of reintroducing large woody debris into lowland streams.

A joint project into the protection of the Freshwater Catfish was supported through the Victorian Investment Framework within the mid Goulburn River floodplain.

River Red Gums that had accumulated in Barmah Forest streams were removed to maintain channel hydrology and improve fish passage.

Water quality (nutrients) in rivers and streams

Continued dry inflow conditions and catastrophic fire events and their potential impact on water quality drove much of the efforts in this investment area. Key actions included the establishment of real-time water quality monitoring to respond to water quality issues and to understand the level of impact on receiving waters.

Very high levels of action that target removal of excess rainfall run-off from irrigated land continue to be achieved, helping to alleviate the threats of nutrient run-off and salinity in wet periods. This is helping to build long-term resilience, even though these benefits are not readily apparent because of the recent long dry period.

Land health

Shepparton Irrigation Region salinity

Implementation of the Shepparton Irrigation Region Catchment Implementation Strategy (SIRCIS) continues at an exceptional rate despite the continued drought, the drop in commodity prices for our irrigator partners and the decline in Commonwealth and State core funding.

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

Much of our farm planning to date has been based on an unchanged regional delivery system. However, the delivery system is changing with irrigation channels being modernised, requiring farm irrigation systems to change so that full benefits are captured.

Significant efforts were devoted to development of the On-Farm Irrigation Efficiency Program funding bid, the 'Farm Water Program', and the subsequent detailed business case. Irrigation improvement projects were developed for 179 farms as part of the business case and of these, 84 were selected to be part of the Goulburn Broken CMA's proposed \$25.8 million first round program, which was announced by the Australian Government in March.

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.

Dryland area salinity

Despite diversion of resources to fire recovery, annual targets across the whole natural resource management program in the dryland were generally met and sometimes exceeded.

Implementation of the Victorian Bushfire Recovery program was again a major focus. The Australian Government's \$4.98 million commitment to fire recovery in June 2010 was a great fillip for the bushfire-affected community and a relief for staff, particularly those who were directly affected by the 2009 Black Saturday bushfires.

We had exceptionally good rains in late 2009 and early 2010, which helped us achieve high levels of revegetation.

A project to determine the process for B register (salinity) reporting (as required under the Federal Water Act) was initiated, in partnership with North Central CMA and DSE.

Refer also to the Broken Goulburn Implementation Committee section on page 20 for further achievements, especially integration of complementary issues and community involvement.

Pest plants and pest animals

Despite the ongoing impact of the Black Saturday bushfires, pest management projects across the Catchment achieved excellent results during 2009-10. 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 check whether infestations had spread.

Environmental stewardship

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

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 2009-10, 906 hectares, or 99 per cent, of a target of 915 hectares of binding management agreements were achieved. Trust for Nature had a target of 850 hectares and was responsible for all 906 hectares of achievement.

Whole farm plans were completed for 259 properties, which represented 115 per cent of the target of 278.

Community capacity

Shepparton Irrigation Region (SIR)

The drought continues to have an impact on the capacity of the community to implement works programs, especially the Environmental and Surface Water, Groundwater and Salt Management programs. Funding cuts have limited the Groundwater and Salt and Surface water management programs. Farm Program activities have however increased due to the need for landholders to use water more efficiently and to integrate with the irrigation modernisation program.

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

This year BGIC supported delivery of an \$11.6 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 played a crucial role in delivery through communicating with partners. BGIC recognises the major efforts of DSE, DPI, Landcare and Goulburn Broken CMA operational teams (Waterways and Biodiversity) in delivering onground outputs.

The commitment of regional partners to collaboratively plan and implement the Fire Recovery Program (following the 2009 Black Saturday bushfires) is resulting in some excellent approaches, such as an employment program and coordination of volunteer support by Landcare. This in turn is resulting in excellent levels of output achievement. Onground staff have been diverted to implement the Fire Recovery Program, which has affected the delivery of core business works. This has been a deliberate reallocation of resources to a priority need.

Catchment condition statement

Biodiversity

- It is difficult to rate the condition of the Catchment in terms of biodiversity because of the uncertainty of measurement. Biodiversity is a new, very broad and complex field of endeavour: scientists, governments and the community are in the early stages of defining the condition of biodiversity that is desired and achievable.
- Against a reference point of pre-European settlement, the Catchment condition is 'poor'.
 - Catchment condition appears to be similar to what it was in 1990, and we are making some progress towards Catchment targets, however, there is a still long way to go
 - the rating of poor is unlikely to change in the medium term at the Catchment scale given the amount of landscape modification since European settlement
 - pre-European condition may not be useful as a reference point; if it is deemed useful or 'all we have' then we may need to acknowledge that it will only ever be possible to work towards a rating of 'satisfactory', rather than 'excellent' or 'good'; other more complex reference points may be more useful but resources spent establishing and monitoring progress might be better used elsewhere.
 - long-term threats will persist regardless of our intervention activities: extinction-debt may occur where species become threatened or extinct due to past broad-scale vegetation clearance; this threat requires sustained action to redress as many threatened species continue to decline and climate change adds another layer of threat and complexity; a wave of species extinctions is forecast under runaway climate change scenarios
 - long-term impacts of regular, intense and broad-scale wildfire are unknown
 - the 2006-07 and 2009 fires burnt over one third of the Catchment's woody vegetation; recovery trajectories for individual species and vegetation types are not yet known.

- Despite the issues outlined above, improvements in condition have occurred and include:
 - reduced legal and illegal vegetation clearance rates (although post-Black Saturday bushfire clearing changes this scenario)
 - important sites have been covenanted or purchased (Trust for Nature, National Reserve System)
 - increased natural regeneration of woodlands through land use change
 - considerable revegetation, remnant protection and stewardship via market-based approaches (continuation of Bush Returns, Green Graze, BushTender and the Woodlands Project)
 - large areas have been protected through incorporation into the National Reserve System, particularly Box-Ironbark Woodlands and River Red Gum Forests
 - environmental water allocations have been delivered to important wetlands and floodplains, although more is needed and this will continue to be a priority
 - institutional relationships and mechanisms have strengthened, particularly with regard to 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

- Realised water savings have been countered by reduced rainfall and hence water availability. Water availability for irrigation has been well below average and water availability for rivers and wetlands has also been very low. Minimum flows in regulated rivers have usually been maintained but there has been low to no winter or spring higher flows.
- 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.

Riparian and instream habitat and channel form

- Major impacts of the 2009 fires on riparian and instream health are being evaluated by the Goulburn Broken CMA.
- 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 caused varying levels of impact to the natural hydrology, ecosystem functioning, and dependant flora and fauna.
- Drought conditions since 1996 have placed the environmental health of the Catchment's rivers, floodplains and wetlands under stress, including the aquatic dependent species they support such as River Red Gum, Macquarie Perch, Barred Galaxias and Murray Cod. Several unregulated streams may not support existing native fish populations in future.
- There are some cases of large-scale vegetation changes due to a drier water regime, such as Giant Rush colonisation of Barmah Lake, Red Gum establishment in beds of now dry creeks and the death of Red Gums on higher parts of the floodplain.

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 have strengthened significantly through the establishment of a number of regional participant forums.
- The recent focus has shifted as a result of the water quality issues that arise through low flow. A range of new monitoring techniques beyond nutrients is now being deployed within the Catchment.
- 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

- Threats of land salinisation, waterlogging and saline inflows into the River Murray have probably reduced significantly due to:
 - a probable drying climate (less water is available to go through to the watertable since the extended dry period began in 1996)
 - 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 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.

Dryland area salinity

- The higher rainfall of late 2009 and early 2010 is unlikely to have caused any significant increase in the salinity threat beyond mobilising surface salt in discharge prone areas. It will take several years of above average rainfall to reconnect surface and groundwater systems in the upland and plains.
- The long-term threat to the River Murray remains, driven by groundwater intrusions into the main waterways of the Catchment.
- It is very difficult to determine the change in connectivity between surface and groundwater systems based on changed climatic patterns and therefore to estimate the impact on changed salt exports. Best estimates are that flows to the River Murray are likely to be more saline in a drying climate with a reduction in freshwater flows, but the impact on salt flows in streams are uncertain.
- 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.

Pest plants and pest animals

- Significant bushfires in recent years, including the catastrophic February 2009 Black Saturday bushfires, have provided opportunities for improved weed and pest animal management. Improved access to infestations, coupled with targeted bushfire recovery funding, is resulting in many effective control programs.
- Terrestrial and aquatic environments remain vulnerable to new and emerging weeds.
- We have a better understanding of what and how to target now, although our capacity to deliver changes has declined in some areas.
- Our very successful local community-scale approach developed via the Rural Extension Program in the past few years provides a model for other catchments.
- Some significant weeds require active management to contain their spread and impact on environmental, social and economic value 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 3,904, covering 269,232 hectares or 85.0 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 drought
 - 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 the SIR, in the form of Uniform Planning Regulations and New Irrigation Development Guidelines.
- The post fire recovery has shown up some deficiencies in the accountabilities and commitments to preservation of native vegetation that need to be addressed urgently to prevent a repeat of unauthorised clearing on a large scale.
- The fires have polarised communities in the Mitchell and Murrindindi Shires on native vegetation and will continue to do so while leadership and direction remain lacking.
- Despite the devastating effects of the Black Saturday bushfires on the Catchment and its people, the community, with Landcare a significant influence, is taking action to recover.
- Targeting of landholders has improved markedly due to better knowledge of agency and landowner relationships.
- Corporate memory at all levels is a major problem (consistent with the challenge that has emerged in the western world since 1990 of rapid staff turnover in all jurisdictions): better information systems are being built to inform new staff quickly so they can more readily respond to needs.

Goulburn Broken onground works by headline themeⁱ for 2009-10



Map produced by J Nunan, IPAQB, BV, DPI Benalla.
 Copyright: The State of Victoria Dept. Primary Industries.

This map shows many of the on ground works directly funded by programs in the Goulburn Broken region. However many of the funded works programs are not shown and they include the major works programs for surface water management, sub-surface water management, river healthworks and the Bush Returns program. Other on-ground works that landowners may fund fully themselves are also not included in this map and the region is looking at a way to capture this important information.

The areas shown for revegetation, fencing and erosion works are not shown to scale. Reuse and automatic irrigation areas are to scale.

The works shown on the map are undertaken through several investment areas such as biodiversity and riparian and instream habitat and channel form.

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ⁱ Activities shown are based on Goulburn Broken CMA outputs that have been translated and sorted according to headline theme via a number of steps established by DSE. This process is in its infancy and while the map shows where activities occurred, it does not accurately depict the purpose of the activities and does not perfectly align activities with headline theme. Reuse and auto irrigation works activities have not been aligned with headline themes in the map.

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 Information Act 1982*.

Legislation	Disclosure required	page
Ministerial Directions		n.a.
Report of operations		9
Financial reporting direction		
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Corporate Plan key performance indicators

The Goulburn Broken CMA Board set the following performance areas and indicators for 2009-10 in the Goulburn Broken CMA's 2009-10 to 2013-14 Corporate Plan.

Performance area	Key performance indicator	Target	Progress
A Governance			
Develop, implement and review corporate and business plans	Corporate Plan submitted to responsible Ministers and Treasurer (including statement of corporate intent, business plan and financial statement)	By 30 April annually	Completed
	Regular monitoring of corporate plan implementation	Enhanced board awareness of the CMAs strategic outcomes and emerging issues	Monthly and quarterly reporting
Completion and submission of the annual report to the responsible Minister	Annual report submitted to the responsible Minister including assessment against KPIs & targets	By 10 October annually (unless varied by Minister)	2008-09 Report submitted within timeframe
	Audited financial statements	Opinion from the Auditor General Victoria that the financial report presents fairly the financial position of the Authority	2008 completed
Board performance	Complete and submit CMA board performance assessment report according to the Guidelines issued by Minister	By 31 August annually	Evaluation process completed
	Participation by Board directors in development activities	Number of directors participating in development activities	All Board directors have and continue to participate in relevant training
	Authority delegations (CaLP Act s19F) reviewed	By 30 September annually	Delegations were unchanged in year
	Monitor Authority financial, social and environmental performance	At each meeting and annual summary to 30 June	Completed
	All policies adopted by or relevant to the CMA are readily available to all Board directors (Public Administration Act s80))	Amended and new policies are placed on web portal within seven days of approval	Completed
Maintain Risk Management Framework in line with AS/NZS 4360:2004 Risk Management Standard	Critically review the risk profile of the Authority annually	Monthly reviews of Risk register	Workshop including Board and management undertook the review
Maintain internal control system enabling the Executive to understand, manage and satisfactorily control risk exposures	Risk management attestation in the annual Report	Undertake three formal Internal audits as developed from review of risk profile and internal control system	Completed
Provide advice to Government on regional priorities and programs for implementation of the agreed Regional Catchment Strategies	Provide briefings, advice and reports within the timelines required	100% delivery achieved within timelines	Achieved
Develop strategies to the 'environmental footprint' of the Authority.	Reduction in energy, water, paper, transport fuel consumption and greenhouse gas emissions	Strategy developed, implemented and monitored (Resource Smart Program)	Achieved
		Reduce our greenhouse gas emissions by 15% by December 2010	Progressing
Victorian Charter of Human Rights and responsibilities	Managers and staff are aware of their obligations under the Human Rights Charter	Include Human Rights in induction	Achieved

Performance area	Key performance indicator	Target	Progress
Climate change and adaptation	Ensure that all Natural Resource Management relevant policies and strategies etc. incorporate climate change and adaptation into their assessments	All new published policies and strategies include climate shift and adaptation strategies	Achieved
		All existing strategies include climate shift and adaptation when reviewed	Achieved
B Financial management			
CMA business processes	Improve capacity to produce financial reporting to Board and investors	Financial reports tabled at each Board meeting in a form that provides clear monthly and year to date comparisons, including variances, in a transparent form that is easily understood by Board members	Board made changes to reporting format during the year
	Variation of actual to budgeted expenditure shown in reports		
Financial Management Compliance Framework	Financial Management Compliance Framework reported electronically to Minister for Finance via DSE	Financial Management Compliance Framework assessment information is submitted electronically by 30 September annually	Completed – included two areas of partial compliance
		Demonstrate how previous non or partial compliance issues have been addressed	Audit Committee review of Operations to June 2010 completed Business Continuity Plan simulation completed
Asset Management	Assets managed according to Financial Reporting Direction and in a sustainable manner	Report to Board quarterly	Completed
C Community engagement			
Establish open and transparent processes to engage the community in development and implementation of the Regional Catchment Strategy and supporting plans	Community Engagement Plan developed and implemented at a regional level	By 30 December	Achieved
	Encourage community discussion and contribution into the Land & Biodiversity White Paper development process and implementation	CMA provide Green/White Paper contributions to DSE	Achieved
Maintain standing community engagement structures to develop and review implementation of strategies and action plans	Standing community engagement structures reviewed for effectiveness and inclusiveness	By 30 December	Achieved
D Integrated regional planning and coordination			
Coordinate and monitor the implementation of the Regional Catchment Strategy	Implementation is reviewed for effectiveness and key priorities	Through the annual report by 30 October annually	Achieved

Performance area	Key performance indicator	Target	Progress
Coordinate the development and implementation of a Regional Investment Plan Administration of State and Australian Government investment in natural resource management program funds in the CMA region	Regional Investment Plan documentation developed and negotiated annually, within timelines	Documents provided to DSE according to Regional Investment Plan process timetable	Achieved
	Program management monitoring processes are in place	MER strategy actions reviewed 6 monthly	Completed
	Quarterly financial reporting	Reports provided on time and in agreed format	Completed
	Annual Regional Investment Plan Reporting	Annually at 15 August	Achieved
	Funds acquitted	Annually at 30 September	Achieved
Partnership and service delivery agreements	Agreements documented and signed (ie Service Level Agreements)	Documentation completed within two months from funding approval	Achieved but delayed
E Caretaker of river health (for CMAs with Water Act responsibilities)			
Development and implementation of onground river restoration works programs	% of projects/studies etc delivered to time, quality and cost parameters	Not less than 90%	Met expectations (monthly and quarterly reporting)
Authorisation of works on waterways permits	No. of days to process permits	90% processed in no more than 28 days	Not applicable
Referral authority for any works on or in relation to a dam	No. of days to process referrals	90% processed in no more than 28 days	Not applicable
Integrated management of the Environmental Water Reserve into the river works program	% of planning for integration complete	100% complete	Achieved
Management of the environmental entitlement included in Environmental Water Reserve	Provide advice to G-MW on bulk entitlement	Provide advice as appropriate	Achieved
Provide advice about flooding and controls on scheme amendments, planning and building approvals to local councils in the capacity as a referral authority	No. of days to process a referral	Not more than 28 days	Achieved
Provide technical advice to councils and the community on flooding	No. of days to process floodplain enquiries	Not more than 28 days	Achieved
F Land management			
Strategic coordination and support for regional Landcare groups, networks and other community groups	Deliver the Regional Landcare Support Strategy, including coordination of Landcare at a regional scale	Progress report by 30 September each year, and evaluation and revision of the strategy every five years	Achieved
Coordinate the development of the Native Vegetation Strategy	Percentage of actions within the Native Vegetation Strategy implemented	90% of actions within the Regional Native Vegetation Management Strategy implemented over the life of the Plan	88.5% of actions completed, 11.5% in progress

Performance area	Key performance indicator	Target	Progress
Land stewardship relating to pest management	Develop Regional Pest Plans applicable to all land tenures in the Catchment	Pest plans revised by 30 June every five years as appropriate and resourced	Achieved
		Monitor implementation over the life of the plans subject to funding	Achieved
Contribute to regional and statutory planning	CMA to respond to planning referrals from the Environment Protection Authority in accordance with relevant legislation	Environment Protection Authority to receive all responses to planning referrals within the legislated timelines	Achieved
	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	Provide numbers of referral responses according to issue provided and trends over time	Achieved
	CMA to guide public land management	Changes to licence conditions for crown frontages	Progressing, involved in crown land frontage project
Salinity management	Implementation and periodic review of Regional Salinity Management Plans, and Land and Water Management Plans	Regional Salinity Management Plans and Land and Water Management Plans available, incorporating annual actions to be implemented	Progressing
	Progress against annual action targets for 2007-2008	All Regional Salinity Management Plans and Land and Water Management Plans actions and targets achieved	Achieved within levels of funding available
	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 by applicable CMAs	Achieved within levels of funding available
	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
G Innovation and knowledge sharing			
Research and capability management in areas that support the Regional Catchment Strategy or sub-strategies' priorities	Support investment in research and capability building aligned with Regional Catchment Strategy priorities	Research and development projects identified annually and reviewed quarterly	Achieved

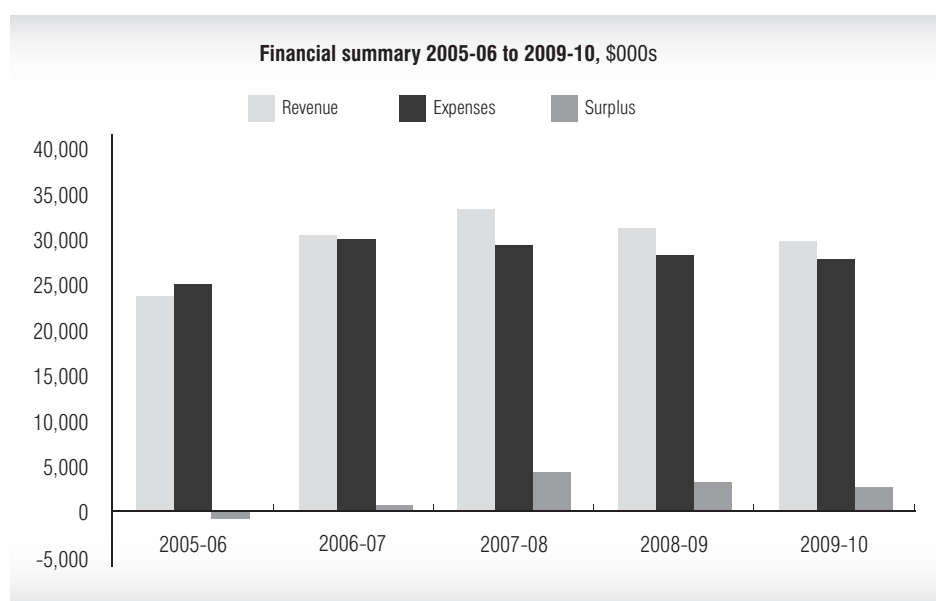
Financial report

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Financial results summary: current plus past four years

	2005-06	2006-07	2007-08	2008-09	2009-10
	\$000	\$000	\$000	\$000	\$000
Income and expenditure					
Victorian Government	10,026	15,851	19,879	20,793	19,945
Australian Government	2,072	2,255	3,072	7,170	6,831
Murray Darling Basin Commission/Authority	391	475	319	329	295
National Action Plan	10,650	10,628	8,568	1,095	-
Government contributions	23,139	29,209	31,838	29,387	27,071
Other revenues	931	1,445	1,657	1,783	2,834
Total income	24,070	30,654	33,495	31,170	29,905
Expense	25,030	29,938	29,189	27,974	27,238
Interest	18	10	7	7	2
Total expenses	25,048	29,948	29,196	27,981	27,240
NET RESULT	(978)	706	4,299	3,189	2,665
Balance sheet items					
Current assets					
Cash	8,102	6,882	11,393	10,434	19,074
Receivables	1,261	540	1,060	6,112	1,454
Prepayments	104	47	60	47	16
Total current assets	9,467	7,469	12,513	16,593	20,544
Fixed assets	1,471	1,513	1,938	1,679	1,640
Total assets	10,938	8,982	14,451	18,272	22,184
Current liabilities					
Trade creditors	2,582	1,220	2,256	1,690	3,676
Borrowings	77	74	57	46	37
Accruals	3,012	1,639	1,434	2,322	1,424
Provisions	448	558	867	1,133	1,327
Total current liabilities	6,119	3,491	4,614	5,191	6,464
Non-current liabilities					
Borrowings	103	70	46	43	30
Other	56	55	51	109	96
Total non-current liabilities	159	125	97	152	126
NET ASSETS	4,660	5,366	9,740	12,929	15,594

	2005-06	2006-07	2007-08	2008-09	2009-10
	\$000	\$000	\$000	\$000	\$000
Equity items					
Contributed capital	4,134	4,134	4,209	4,209	4,209
Reserves	526	1,232	5,531	8,720	11,385
TOTAL EQUITY	4,660	5,366	9,740	12,929	15,594
Cash flow items					
Net operating activities	216	(775)	5,378	(679)	8,986
Net investing activities	(415)	(365)	(862)	(211)	(295)
Net financing activities	(56)	(80)	(5)	(69)	(51)
Net cash movement	(255)	(1,220)	4,511	(959)	8,640



Significant changes in financial results for 2009-10

	Original Corporate Plan April 2009	Corporate Plan October 2009*	Actual
	\$000	\$000	\$000
Statement of financial performance			
Total revenue	23,297	25,052	29,905
Total expenditure	22,903	30,171	27,240
Net profit/(deficit)	394	(5,119)	2,665
Statement of financial position			
Cash and receivables	8,344	11,218	20,528
Other	35	35	16
Non-current assets	1,834	1,834	1,640
Total assets	10,213	13,087	22,184
Liabilities			
Current	4,218	5,152	6,464
Non-current	125	125	126
Total liabilities	4,343	5,277	6,590
Net assets	5,870	7,810	15,594

*In October 2009 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 deficit of \$5.1 million to the end of June 2010 due to projected expenditure in the year of significant funds received in the previous financial year.

Due largely to additional State funding, actual revenue for the financial year to 30 June 2010 exceeded Corporate Plan projections by 19 per cent, together with a reduction of 9 per cent, in projected expenditure, the result for the year is \$2.665 million.

Program fund source

	Program Budget Revenue	Variance	Actual revenue	Plus funds brought forward	Expended	Funds carried forward
	\$000	\$000	\$000	\$000	\$000	\$000
Biodiversity	2,350	161	2,511	1,499	2,055	1,955
Catchment planning	2,310	898	3,208	949	2,958	1,199
Salinity and soils	1,442	1,793	3,235	111	2,689	657
Sustainable irrigation	6,943	1,663	8,606	2,266	10,359	513
River health	12,007	338	12,345	8,104	9,179	11,270
	25,052	4,853	29,905	12,929	27,240	15,594

Note: Funds brought forward adjusted for reclassification.

Consultancies

	2006-07	2007-08	2008-09	2009-10
Cost	\$2,209,698	\$1,654,699	\$1,871,307	\$1,788,412
Number of consultants	23	30	24	61
Consultancies in excess of \$100,000	1	3	3	-

Consultants over \$100,000

Name	Summary of project	Total cost excluding GST	Expenditure for 2009-10	Future commitments
		\$	\$	\$
Nil		-	-	-

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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 2010 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, a summary of significant accounting policies and other explanatory notes to and forming part of the financial report, and the certification to the financial statements has been audited.

The Board Members Responsibility for the Financial Report

The Board Members of 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*. This responsibility includes:

- establishing and maintaining internal controls relevant to the preparation and fair presentation of the financial report that is free from material misstatement, whether due to fraud or error
- selecting and applying appropriate accounting policies
- making accounting estimates that are reasonable in the circumstances.

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. These Standards require compliance with relevant ethical requirements relating to audit engagements and that the audit be planned and performed to obtain reasonable assurance 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 Members, 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.

Level 24, 35 Collins Street, Melbourne Vic. 3000
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Auditing in the Public Interest

VAGO

Victorian Auditor-General's Office

Independent Auditor's Report (continued)

Matters Relating to the Electronic Presentation of the Audited Financial Report

This auditor's report relates to the financial report published in both the annual report and on the website of Goulburn Broken Catchment Management Authority for the year ended 30 June 2010. The Board Members of Goulburn Broken Catchment Management Authority are responsible for the integrity of the website. I have not been engaged to report on the integrity of the website. The auditor's report refers only to the statements named above. An opinion is not provided on any other information which may have been hyperlinked to or from these statements. If users of this report are concerned with the inherent risks arising from electronic data communications, they are advised to refer to the hard copy of the audited financial report to confirm the information included in the audited financial report presented on the Goulburn Broken Catchment Management Authority website.

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.

Auditor's Opinion

In my opinion, the financial report presents fairly, in all material respects, the financial position of Goulburn Broken Catchment Management Authority as at 30 June 2010 and its financial performance and 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*.

Material Uncertainty Regarding Continuation as a Going Concern

Without qualification to the opinion expressed above, attention is drawn to the following matter. As indicated in note 23 to the financial report, the government's Land and Biodiversity White Paper has recommended the establishment of five Natural Resource & Catchment Authorities to consolidate existing Catchment Management Authorities, including the Goulburn Broken Catchment Management Authority. As a result of this white paper, it is expected that legislation will be enacted in the Victorian Parliament to amend the *Catchment and Land Protection Act 1994* to effect the reform, including the transfers of the functions, assets and liabilities of the existing Authority to a new Natural Resource and Catchment Authority. At the date of this report, the proposed administrative arrangements have not been fully determined and the required legislation has not been enacted. As a result, there is a material uncertainty about whether the Authority will continue as a going concern.

MELBOURNE
24 August 2010

T. Duff
For
D D R Pearson
Auditor-General

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Auditing in the Public Interest

Financial statements

Goulburn Broken Catchment Management Authority

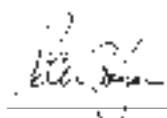
Australian Business Number (ABN): 89 184 039 725

Certification to the financial statements

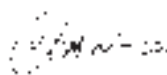
We hereby certify that the financial statements of the Goulburn Broken Catchment Management Authority, have been prepared in accordance with the Standing Directions 4.2 of the *Financial Management Act 1994*, applicable Australian Accounting Standards, Interpretations and other mandatory professional 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 2010 and the financial position of the Authority as at 30 June 2010.

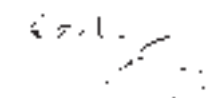
We are not aware of any circumstances which would render any particulars included in the financial statements to be misleading or inaccurate.



Peter F Ryan
Acting Chair



C P Norman
Chief Executive Officer



S D Gibney
Business Manager

24 August 2010

Operating statement for the financial year ended 30 June 2010

	Note	2010 \$000	2009 \$000
Revenue from operating activities			
Government contributions	3	27,071	29,387
Other revenues from ordinary activities	3	2,731	1,821
		29,802	31,208
Revenue from non-operating activities	3	103	(38)
TOTAL REVENUE		29,905	31,170
Expenses from operating activities			
Operating costs to works programs	4a	(25,555)	(26,008)
Amortisation of leased assets	4c	(41)	(49)
Depreciation	4b	(425)	(431)
Corporate administration expenses	4d	(1,014)	(1,296)
Interest		(2)	(7)
Provision for impaired receivables		-	3
Occupancy expenses		(203)	(193)
TOTAL EXPENSES		(27,240)	(27,981)
NET RESULT FOR THE PERIOD		2,665	3,189

The accompanying notes form part of these financial statements.

Statement of comprehensive income for the financial year ended 30 June 2010.

	Note	2010 \$000	2009 \$000
Net result for the period		2,665	3,189
Other comprehensive income for the period.		-	-
Total comprehensive income for the period		2,665	3,189

The accompanying notes form part of these financial statements.

Balance sheet as at 30 June 2010

	Note	2010 \$000	2009 \$000
Assets			
Current assets			
Cash and cash equivalents	5	19,074	10,434
Receivables	6	1,454	6,112
Prepayments		16	47
Total current assets		20,544	16,593
Non-current assets			
Property, plant and equipment	7	1,640	1,679
Total non-current assets		1,640	1,679
Total assets		22,184	18,272
Liabilities			
Current liabilities			
Payables	8	5,100	4,012
Interest bearing liabilities	9	37	46
Employee benefits	10	1,327	1,133
Total current liabilities		6,464	5,191
Non-current liabilities			
Interest bearing liabilities	9	30	43
Employee benefits	10	96	109
Total non-current liabilities		126	152
Total liabilities		6,590	5,343
Net assets		15,594	12,929
Equity			
Contributed equity	12	4,209	4,209
Accumulated funds	13	-	-
Reserve	14	11,385	8,720
Total equity		15,594	12,929

The accompanying notes form part of these financial statements.

Statement of changes in equity for the year ended 30 June 2010

	Note	Contributors by owners \$000	Reserves \$000	Accumulated funds \$000	Total \$000
Balance at 1 July 2008		4,209	5,531	-	9,740
Effects of changes in accounting policy		-	-	-	-
Restated total equity at beginning of the financial year		4,209	5,531	-	9,740
Total comprehensive income for the year as reported in the 2009 financial report		-	3,189	-	3,189
Effects of changes in accounting policy		-	-	-	-
Restated total comprehensive income for the year		-	3,189	-	3,189
Transactions with the State in its capacity as owner					
Dividends		-	-	-	-
Contributions by owners		-	-	-	-
Balance at 30 June 2009		4,209	8,720	-	12,929
Total comprehensive income for the year		-	2,665	-	2,665
Transactions with the State in its capacity as owner					
Dividends		-	-	-	-
Other		-	-	-	-
Balance at 30 June 2010		4,209	11,385	-	15,594

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 2010

	Note	2010 \$000	2009 \$000
Cash flow from operating activities			
Government contributions		31,698	24,921
Payments to suppliers and employees		(26,751)	(29,352)
GST (remitted to) received from Australian Tax Office		1,052	1,718
Interest received		571	787
Interest paid		(2)	(7)
Other revenue		2,418	1,254
Net cash provided by (used in) operating activities	20b	8,986	(679)
Cash flow from financing activities			
Proceeds from contributed capital		-	-
Repayment of finance lease liabilities		(51)	(69)
Net cash provided by (used in) finance activities		(51)	(69)
Cash flow from investing activities			
Proceeds from sale of property, plant and equipment		471	199
Payment for property, plant and equipment		(766)	(410)
Net cash provided by (used in) investing activities		(295)	(211)
Net (decrease) / increase in cash held		8,640	(959)
Cash and cash equivalents at beginning of year		10,434	11,393
Cash and cash equivalents at end of year	20a	19,074	10,434

The accompanying notes form part of these financial statements.

Notes to the financial statements for the year ended 30 June 2010

Note 1: Significant accounting policies

a Basis of accounting

General

This financial report of Goulburn Broken Catchment Management Authority (Goulburn Broken 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, 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.

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 Authority's operational cycle, see 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 Authority's accounting policies.

Financial statement presentation

The entity has applied the revised AASB 101 *Presentation of Financial Statements* which became effective on 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

Government grants 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 Authority 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.

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.

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.

Notes to the financial statements for the year ended 30 June 2010

Note 1: Significant accounting policies (continued)

d Recognition and measurement of assets

Property, plant and equipment represent non-current assets comprising infrastructure, buildings, plant, equipment and motor vehicles, used by the Authority 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 Authority 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 land under declared roads and 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 using management expertise and are classified as a managerial revaluation.

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 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 Authority 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 Authority 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.

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.

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 2010

Note 1: Significant accounting policies (continued)

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 Authority 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 Authority 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 Authority does not expect to settle within 12 months; and
- nominal value – component that the Authority 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 Authority 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 Authority does not recognise any defined benefit liability in respect of the superannuation plan because the Authority 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 11 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 Authority'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 Authority for the agreed works program to be government appropriations. Consequently as this does not constitute a taxable supply, the Authority receives no GST on amounts paid by the Department.

Notes to the financial statements for the year ended 30 June 2010

Note 1: Significant accounting policies (continued)

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 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 Authority's intention to hold these investments to maturity. Any held-to maturity investments held by the Authority are stated at cost.

Impairment

At each reporting date, the Authority 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 Authority 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 2010 reporting period. As at 30 June 2010, the following standards and interpretations had been issued but were not mandatory for financial year ending 30 June 2010. The Corporation has not and does not intend to adopt these standards early.

Standard / Interpretation	Summary	Applicable for annual reporting periods beginning or ending on or after	Impact on financial statements
AASB 2009-5 Further Amendments to Australian Accounting Standards arising from the Annual Improvements Project [AASB 5, 8, 101, 107, 117, 118, 136 & 139]	In May 2009, the AASB issued a number of improvements to existing Australian Accounting Standards. The entity will apply the revised standards from 1 July 2010	1 January 2010	The entity does not expect that any adjustments will be necessary as a result of applying the revised rules
AASB 2009-8 Amendments to Australian Accounting Standards – Group Cash-Settled Share-based Payment Transactions [AASB 2]	The amendments made by the AASB to AASB 2 confirm that an entity receiving goods or services in a group share-based payment arrangement must recognise an expense for those goods or services regardless of which entity in the group settles the transaction or whether the transaction is settled in shares or cash. They also clarify how the group share-based payment arrangement should be measured, that is, whether it is measured as an equity- or a cash-settled transaction	1 January 2010	Not applicable

Note 1: Significant accounting policies (continued)

Standard / Interpretation	Summary	Applicable for annual reporting periods beginning or ending on or after	Impact on financial statements
AASB 2009-10 Amendments to Australian Accounting Standards – Classification of Rights Issues [AASB 132]	In October 2009 the AASB issued an amendment to AASB 132 Financial Instruments: Presentation which addresses the accounting for rights issues that are denominated in a currency other than the functional currency of the issuer. Provided certain conditions are met, such rights issues are now classified as equity regardless of the currency in which the exercise price is denominated. Previously, these issues had to be accounted for as derivative liabilities. The amendment must be applied retrospectively in accordance with AASB 108 Accounting Policies, Changes in Accounting Estimates and Errors	1 February 2010	Not applicable
AASB 9 Financial Instruments and AASB 2009-11 Amendments to Australian Accounting Standards arising from AASB 9	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 entity is yet to assess its full impact. However, initial indications are that it may affect the entity'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 entity 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 Interpretation 19 Extinguishing financial liabilities with equity instruments and AASB 2009-13 Amendments to Australian Accounting Standards arising from Interpretation 19	AASB Interpretation 19 clarifies the accounting when an entity renegotiates the terms of its debt with the result that the liability is extinguished by the debtor issuing its own equity instruments to the creditor (debt for equity swap). It requires a gain or loss to be recognised in profit or loss which is measured as the difference between the carrying amount of the financial liability and the fair value of the equity instruments issued	1 July 2010	It is not expected to have any impact on the entity's financial statements since it is only retrospectively applied from the beginning of the earliest period presented (1 July 2009) and the entity has not entered into any debt for equity swaps since that date.
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 entity does not make any such prepayments. The amendment is therefore not expected to have any impact on the entity's financial statements.

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 23 'Natural resource management sector reform' for potential impacts.

Notes to the financial statements for the year ended 30 June 2010

Note 2: Financial risk management objectives and policies

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

The Authority's Board has overall responsibility for the establishment and oversight of the Authority's risk management framework. The Authority's overall risk management program focuses on the unpredictability of financial markets and seeks to minimise potential adverse on the financial performance of the Authority. The Authority 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 Authority'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 Authority 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 Authority's financial instruments. Market risk comprises of interest rate risk and other price risk. The Authority's exposure to market risk is primarily through interest rate, there is no exposure to foreign exchange risk and significant exposure to other price risks.

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

Interest rate risk

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

Other price risk

The Authority has no significant exposure to other price risk.

Market risk sensitivity analysis

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

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

30 June 2009	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	10,434	(104)	(104)	104	104
Receivables	6,112	-	-	-	-
Financial liabilities					
Payables	(4,012)	-	-	-	-
Interest bearing liabilities	(89)	-	-	-	-
Total increase/(decrease)	12,445	(104)	(104)	104	104

Notes to the financial statements for the year ended 30 June 2010

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

b Credit risk

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

The Authority'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 Authority has in place a policy and procedure for the collection of overdue receivables.

c Liquidity risk

Liquidity risk is the risk that the Authority will not be able to meet its financial obligations as they fall due. The Authority'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 Authority 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 Authority's financial liability maturities have been disclosed in Note 21.

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 Authority 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 21.

Note 3: Revenues

	Note	2010 \$000	2009 \$000
Revenue from operating activities			
Government contributions	3a	27,071	29,387
<i>Other revenues from ordinary activities</i>			
Interest		633	644
Contributions from third parties		1,032	703
Workcover		86	64
Rent received		34	35
Seedbank funding		162	85
Joint activities with CMAs		184	45
Other		600	245
Other revenues from ordinary activities		2,731	1,821
Non-Operating activities			
(Loss) Gain on disposal of property, plant and equipment		103	(38)
Total Revenue		29,905	31,170
a Government contributions			
State Government of Victoria			
Catchment Planning		993	1,519
Floodplain Administration		438	336
Environmental Flows Monitoring and Assessment		370	614
River Health and Water Quality		1,492	3,096
Sale of Environmental Water Quality Reserve (River Health Program)		4,177	400
Salinity Infrastructure		3,329	3,724
Second Generation Landcare		545	530
Sustainable Irrigated Agriculture		2,727	3,020
Victorian Water Trust and Water Smart Farms Initiative		1,141	1,076
White Paper – River Health Large Scale River Restoration		1,350	827
Broken Boosey Conservation Management Network		111	113
Recreational Fishing		70	-
Bushfire Recovery Funding		939	1,536
Drought Employment Program		-	2,750
Native Vegetation		-	326
Natural Resource Investment Plan		2,240	-
Other		23	926
		19,945	20,793
Australian Government			
Caring for Our Country		4,471	4,450
Caring for Our Country - Bushfire Recovery		2,260	2,720
Other Agriculture Fisheries and Forestry Australia (AFFA)		100	-
		6,831	7,170
Murray Darling Basin Commission/Authority			
		295	329
Victorian State and Australian Government			
National Action Plan		-	1,095
Total Government contributions		27,071	29,387

Notes to the financial statements for the year ended 30 June 2010

Note 4: Expenses

Net result for the period has been determined after:

	Note	2010 \$000	2009 \$000
a Operating costs to works programs			
Biodiversity and Landscape Change		2,035	2,009
Catchment Planning		2,407	1,295
Sustainable Dryland Landscapes		2,663	1,822
Engineering Options for Salinity Control		-	90
Sustainable Irrigation – Farm, Environment and Other		6,231	5,587
Sustainable Irrigation – Sub-Surface Drainage		4,053	4,788
River Health			
Drought Employment Program		39	3,145
Healthy Waterways Program		5,297	4,262
Broken River		10	126
Strategic		1,381	1,344
Water Quality and Environmental Flows		789	1,031
Floodplain		650	509
Total operating costs to works program		25,555	26,008
b Depreciation of non-current assets			
Buildings		1	2
Plant and equipment		76	73
Motor vehicles		348	356
Total depreciation		425	431
c Amortisation of leased assets			
		41	49
d Corporate administration expenses			
Implementation Committees		44	50
Audit fees – internal audit		29	33
– Auditor General for audit of financial statements		12	11
Board governance		91	106
Salaries and on-costs		799	1,013
Other		39	83
Total administration expenses		1,014	1,296
e Employee related expenses			
These expenses have been allocated to:			
i Operating costs to works program		3,603	3,333
ii Administration expenses		799	1,013
Total employee related expenses		4,402	4,346

Note 5: Cash and cash equivalents

Cash at bank and on hand		19,074	10,434
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Cash at bank bears interest rates between 4.15% and 4.60% (2009: 2.85% and 2.95%). All of these funds are restricted in that they are held to be spent on a range of programs which the Authority currently has underway.

Note 6: Receivables

	Note	2010 \$000	2009 \$000
Government grants receivable		122	4,749
Net GST amount due from Australian Tax Office		633	406
Trade debtors		605	925
Accrued interest		94	32
Total receivables		1,454	6,112

a Provision for impaired receivables

As at 30 June 2010, current receivables of the Authority with a nominal value of \$nil (2009: \$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 2010, government receivables of \$68,031 (2009: \$10,156) and other receivables of \$10,848 (2009: \$nil) 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		65	-
Over six months		13	10
Total		78	10

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		-	68
Provision for impairment recognised during the year		-	-
Receivables written off during the year as uncollectible		-	(65)
Unused amount reversed		-	(3)
Total		-	-

Note 7: Property plant and equipment

	Note	2010 \$000	2009 \$000
Buildings at fair value		44	44
Less accumulated depreciation		(42)	(41)
		2	3
Plant and equipment at fair value		926	853
Less accumulated depreciation		(613)	(540)
		313	313
Motor vehicles at fair value		1,586	1,798
Less accumulated depreciation		(451)	(640)
		1,135	1,158
Office and computer equipment acquired under finance lease at fair value		290	279
Accumulated amortisation		(236)	(213)
		54	66
Dowdle Swamp floodway at cost		170	170
Less accumulated depreciation		(34)	(31)
		136	139
Total property, plant and equipment		1,640	1,679

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
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
2008-09						
Opening written down value at 1 July 2008	143	5	332	1,391	67	1,938
Additions	-	-	50	359	48	457
Disposals	-	-	-	(236)	-	(236)
Depreciation expense	(4)	(2)	(69)	(356)	-	(431)
Amortisation	-	-	-	-	(49)	(49)
Closing written down value at 30 June 2009	139	3	313	1,158	66	1,679

Notes to the financial statements for the year ended 30 June 2010

Note 8: Payables

	Note	2010 \$000	2009 \$000
Trade creditors		3,676	1,631
Accruals		1,424	2,381
Total payables		5,100	4,012

Note 9: Interest bearing liabilities

Current			
Secured			
Finance lease liability	15c	37	46
Non-current			
Secured			
Finance lease liability	15c	30	43
Total interest bearing liabilities		67	89
Assets pledged as security		-	-
Non current finance lease office and computer equipment		67	89

Note 10: 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		354	319
Employee benefits expected to be settled after 12 months, after the end of the period, measured at present value		973	814
Total current		1,327	1,133
Non-current			
Conditional long service leave measured at present value		96	109
Total employee benefits		1,423	1,242
Number of full time equivalent employees at year end		49.7	43.9

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		4.48%	4.45%
Weighted average discount rates		4.81%	5.48%
Weighted average settlement period		10 years	10 years

Notes to the financial statements for the year ended 30 June 2010

Note 11: Superannuation

Goulburn Broken CMA makes employer superannuation contributions in respect of its employees to the Local Authorities Superannuation Fund (the Fund) in the absence of any employee declaration to direct contributions to an alternate complying Superannuation Fund.

Obligations for contributions are recognised as an expense in profit or loss when they are due. The Fund has two categories of membership, 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) are 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 Authority'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.

The actuarial investigation concluded that although the net market value of assets was in excess of accrued benefits at 31 December 2008, based on the assumptions adopted, there was a shortfall of \$71 million when the funding of future benefits was also considered. However the Authority has been advised that no additional contributions will be required as at 30 June 2010. The Actuary has commenced undertaking the next actuarial investigation to ascertain if additional contributions would be required. The Actuarial review will be as at 30 June 2010.

The result of the Actuarial review is expected to be finalised during October 2010. Should the review identify a funding shortfall requiring additional contributions, the Goulburn Broken CMA will be notified of any amount payable by November 2010 for payment on 1 July 2011. A further Actuarial review will be undertaken as at 30 June 2011. Based on the result of this further review, a detailed funding plan will be developed and implemented to achieve the target of fully funding the Fund by 31 December 2013.

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

Notes to the financial statements for the year ended 30 June 2010

Note 11: Superannuation (continued)

Contributions

The Authority 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 %	2010 \$000	2009 \$000
Colonial	Accumulation	9.00	7	6
Government Superannuation Office	Accumulation	Various	88	69
Vision Super	Defined Benefits	9.25	14	12
Vision Super	Accumulation	9.00	154	162
Other funds	Accumulation	9.00	212	231
Total contributions to all funds			475	480

As at balance date, there were contributions payable of \$52,071 (2009: \$7,966)

Note 12: Contributed equity

	Note	2010 \$000	2009 \$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 13: Accumulated funds

Balance at the beginning of the reporting period		-	-
Net result for the year		2,665	3,189
Transfer from / (to) reserves		(2,665)	(3,189)
Balance at the end of the reporting period		-	-

Note 14: Reserve

Committed funds reserve			
Balance at the beginning of the reporting period		8,720	5,531
Net transfers (to) / from accumulated funds		2,665	3,189
Balance at the end of the reporting period		11,385	8,720

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 Authority 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 15: Commitments

	Note	2010 \$000	2009 \$000
a Operating lease commitments:			
Office accommodation			
Within one year		164	159
One year to five years		171	330
		335	489
Photocopier			
Within one year		5	5
One year to five years		6	11
		11	16
Total			
Within one year		169	164
One year to five years		177	336
Total		346	500
b Other commitments			
At balance date the Authority had commitments for works expenditure payable as follows:	15e		
Within one year		16,746	15,302
Later than one year but within five years		537	399
Later than five years		107	211
Total Committed Funds		17,390	15,912
c Finance leases commitments			
At balance date that Authority had finance lease commitments payable as follows:			
Within one year		39	49
One year to five years		32	45
Less future finance charges		(4)	(5)
Total		67	89
Represented by:			
Current liability	9	37	46
Non-current liability	9	30	43
Total		67	89
d Capital commitments			
At balance date the Authority had commitments for capital expenditure payable as follows:			
Within one year		95	-
		95	-

Note 15: Commitments (continued)

e 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 (f)
	Funds carried forward 1 July 2009	Funds current year	Total	Current year	Funds carried forward 1 July 2010		
	\$000	\$000	\$000	\$000	\$000	\$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 carried forward at 1 July 2009 reclassified

Program	Revenue recognised			Outgoings	Unexpended program contributions	Outstanding program commitment	Variance Note (f)
	Funds carried forward 1 July 2008	Funds received in 2008-09	Total	Expended 2008-09	Funds carried forward 1 July 2009		
	\$000	\$000	\$000	\$000	\$000	\$000	\$000
Biodiversity	1,783	1,724	3,507	1,895	1,612	1,612	-
Catchment planning and community engagement	570	3,261	3,831	3,341	490	490	-
Sustainable dryland landscapes	704	1,269	1,973	1,879	94	1,086	(992)
Sustainable irrigation	1,909	10,765	12,674	10,408	2,266	3,208	(942)
River health	4,774	14,151	18,925	10,458	8,467	9,516	(1,049)
Total	9,740	31,170	40,910	27,981	12,929	15,912	(2,983)

Funds committed as at 30 June 2010 are anticipated to be expended as follows:

	2010	2009
	\$000	\$000
Within one year	16,746	15,302
Later than one year but within five years	537	399
Later than five years	107	211
Total Committed Funds	17,390	15,912

(f) Variances under the Sustainable Dryland Landscapes, Sustainable Irrigation and River Health programs are in respect of grants approved in line with a two year approval cycle which shall be funded from 2010-11 program funding and funds carried forward. Indicative funding allocations are advised to the Authority to enable programs to be accommodated within the two year cycle rather than limited only to the funding available for the particular year.

Note 16: Contingent assets and liabilities

At balance date, the Authority was not aware of any material assets not recorded or disclosed in the accounts.

Note 17: 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 Authority, the results of those operations, or the state of affairs of the Authority in future financial years. See note 23, for details of the Natural resource management sector reform.

Notes to the financial statements for the year ended 30 June 2010

Note 18: 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	Gavin Jennings MLC	1 July 2009 to 30 June 2010
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There were numerous transactions between the Authority 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 from 9 April 2010
Board Member	F Whitford	1 July 2009
Board Member	H Davies	27 March 2008 (resigned 31 March 2010)
Chair	H Davies	28 March 2008 (resigned 31 March 2010)
Acting Chair	P F Ryan	1 April 2010 (Deputy Chair 11 August 2009 to 31 March 2010)
CEO	W J O'Kane	4 October 1997 – 14 December 2009
CEO	C P Norman	15 December 2009
Acting CEO	S D Gibney	1 – 12 July 2009; 12 – 23 October 2009; 10 November – 14 December 2009.

b Remuneration of responsible persons

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

Income bands	2010 no.	2009 no.
\$1-\$9,999	6	7
\$10,000-\$19,999+	2	2
\$20,000-\$29,999	1	-
\$80,000-\$89,999	1	-
\$90,000-\$99,999	1	-
\$210,000-\$219,999	-	1
Total	11	10

The total remuneration of responsible persons referred to in the above bands was \$273,279 (2009: \$309,979) which includes \$36,198 (2009: \$32,688) 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:

Income bands	2010 no.	2009 no.
\$110,000 - \$119,999	1	4
\$120,000 - \$129,999	2	2
\$130,000 - \$139,999	2	-
\$140,000 - \$149,999	1	1
\$150,000 - \$159,999	1	-
Total	7	7

The total remuneration including superannuation of executives whose remuneration was greater than \$100,000 referred to in the above bands was \$930,584 (2009: \$852,443).

Note 18: Responsible persons related disclosures (continued)

Remuneration bands	Total remuneration		Base remuneration	
	2010	2009	2010	2009
\$100,000 - \$109,999	-	-	-	1
\$110,000 - \$119,999	1	4	1	4
\$120,000 - \$129,999	2	2	4	1
\$130,000 - \$139,999	2	-	1	1
\$140,000 - \$149,999	1	1	1	-
\$150,000 - \$159,999	1	-	-	-
Total amount	\$930,584	\$852,443	\$894,234	\$816,598
Total numbers	7	7	7	7

d Other related party transactions

Loans

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

Shares

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

Other

An environmental management incentive for \$2,953.37 was paid for works carried out on property in which Peter Ryan has an interest. The incentive payment was in line with the Authority's standard terms and conditions of the incentives scheme.

Lyn Gunter is a councillor with the Shire of Murrindindi. During the year, the Authority from time to time had dealings with the Municipality on normal commercial terms and conditions.

Other than travel reimbursements there were no other transactions between the Authority and Responsible Persons and their related parties during the financial year.

There were no retirement benefits paid by the Authority in connection with the retirement of responsible persons of the Authority.

Note 19: Economic dependence

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

Note 20: Cash flow information

	Note	2010 \$000	2009 \$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	19,074	10,434
b Reconciliation of cash flow from operations with net result for the year			
Net result for the period		2,665	3,189
Non-cash flows in net result			
Depreciation		425	431
Amortisation		41	49
Net loss (gain) on disposal of non-current assets		(103)	38
Provision for bad debt write-off		-	(3)
Changes in assets and liabilities			
(Increase) / decrease in receivables		4,658	(5,042)
(Increase) / decrease in prepayments		31	13
Increase / (decrease) in provisions		181	324
Increase / (decrease) in payables		1,088	322
Cash flows from operating activities		8,986	(679)

c Property plant and equipment

During the financial year the Authority acquired computer equipment with an aggregate fair value of \$29,383 (2009: \$48,472) by means of finance leases. These acquisitions are not reflected in the cash flow statement.

Note 21: Financial instruments

Interest risk rate exposures

The following table sets out the Authority'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 Authority intends to hold fixed rate liabilities to maturity.

	Weighted average interest rate %	Floating interest rates \$000	Fixed interest te maturing			Non-interest bearing \$000
			1 year or less \$000	1 to 2 years \$000	2 to 3 years \$000	
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)
2008-09						
Financial assets						
Cash	2.9	10,432	-	-	-	2
Receivables	n/a	-	-	-	-	6,112
Total financial assets	-	10,432	-	-	-	6,114
Financial liabilities						
Lease liabilities	5.6	-	46	32	11	-
Payables	n/a	-	-	-	-	4,012
Total financial liabilities	-	-	46	32	11	4,012
Net financial liabilities	-	10,432	(46)	(32)	(11)	2,102

Fair value

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

	2010		2009	
	Carrying amount	Fair value	Carrying amount	Fair value
	\$000	\$000	\$000	\$000
Financial assets				
Cash	19,074	19,074	10,434	10,434
Receivables	1,454	1,454	6,112	6,112
Total financial assets	20,528	20,528	16,546	16,546
Financial liabilities				
Lease liabilities	67	67	89	89
Payables	5,100	5,100	4,012	4,012
Total financial liabilities	5,167	5,167	4,101	4,101

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.

Notes to the financial statements for the year ended 30 June 2010

Note 22: Authority details

The registered office of the Authority and principal place of business is: 168 Welsford Street, Shepparton 3630, Victoria.

Note 23: 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. Included in the document was a commitment to restructure Victoria's natural resource management bodies and the associated legislation.

The Government has determined that structural reform of key delivery organisations in Victoria's natural resource management sector, principally the Catchment Management Authorities, Regional Coastal Boards and associated peak bodies, is required. The White Paper foreshadows the establishment of Natural Resource and Catchment Authorities (NRCAs) by June 2011.

Alignment of new Natural Resource and Catchment Authorities

New Authority	Current bodies
Melbourne Water and Catchment Authority	Melbourne Water, Port Phillip Western Port CMA, Central Coastal Board
Gippsland NRCA	East Gippsland CMA, West Gippsland CMA, Gippsland Coastal Board, Gippsland Lakes Taskforce
Western Districts NRCA	Gleneleg Hopkins CMA, Corangamite CMA, Western Coastal Board
Wimmera–Mallee NRCA	Wimmera CMA, Mallee CMA
Northern Rivers NRCA	North Central CMA, Goulburn Broken CMA, North East CMA

The financial impact of the reform cannot be reliably measured as at balance date.

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 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 124. 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 increase.

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 48).

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 bi-geographical regionalisation of Australia sub-region.

'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 socio-ecological 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 socio-ecological 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 1a - Shepparton Irrigation Region salinity: watertables and River Murray salinity

Compiled by Carl Walters, Peter Howard, Terry Batey, James Burditt, Sam Green and Rod McLennan. See www.gbcm.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	2010	Certainty of rating	Trend
2009-10 performance	Outputs (against targets set as a result of funds received)	n.a.	n.a.	Exceeded target	High	n.a.
Long-term strategy implementation progress	Outputs (scheduled between 1990 and 2009)	n.a.	n.a.	On target	High	↓ ⁱⁱⁱ
Catchment condition ^{iv}	Watertable salinity and depths Salt disposed to Murray River Salinity of environmental features Management systems	Poor	Low	Good	Medium	↑↑

ⁱ See Appendix 1 for notes on the analytical framework (page 91), including an explanation of the decision focus and ratings.

ⁱⁱ Ratings for 1990 have been determined using our understanding in 2010 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, 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 from the implementation of the Shepparton Irrigation Region Catchment Implementation Strategy at or below 6.9 EC.

Managing salt within the SIR landscape and discharges of salt to waterways are high priorities in contributing to objectives of the Murray-Darling Basin'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 SIRIC and each program is covered by a working group: Farm and Environment, Groundwater and Salinity Management, and Surface Water Management.

Government investment, \$000

2007-08	2008-09	2009-10	2010-11 ⁱ	Trend
12,060	11,720	8,607	5,863	↓

ⁱ Forecast based on an estimated 4 per cent cost and 10 per cent staff numbers increases on 2009-10 figures.

Major strategic references

- Shepparton Irrigation Region Land and Water Salinity Management Plan 1989 (and reviews 1995, 2000, 2003, 2007 in preparation), 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 and environment groups.

Different farm sectors have different salinity management needs. Dramatically reduced water allocations in recent years are resulting in some farm sectors declining. Regional tertiary industries are also changing in response to changing supplies of primary produce and rapidly changing 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 change and irrigation salinity

Climate change and climate change responses are significantly affecting land salinisation in the SIR and River Murray salinity downstream of the SIR.

Water tables are generally getting lower because less water is entering the soil profile as the climate dries and as water is used more efficiently.

Allocations of irrigation water were again less than 100 per cent of entitlement and this is predicted to continue as the climate changes. Water ownership also continues to change, with an increasing proportion becoming part of the Environmental Water Reserve (see page 102) 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 Government, 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 they might, respectively, result in reduced diluting outfall flows from channels and properties, and in lower river flows during summer. This could be balanced by the timing of environmental water deliveries being sensitive to the impacts on salinity. A project between Goulburn Broken CMA, North Central CMA, DSE and NVIRP will assess the effect of irrigation modernisation activities on salt loads in 2010-11.

Shallow groundwater levels have not been high enough in recent years to trigger the need for landholders to dispose of salt in winter by pumping into channels. A request has been sent to the Murray-Darling Basin Authority to remove this action from the Salt Register. This will provide EC credits to be used elsewhere.

2009-10 performance

Implementation of the Shepparton Irrigation Region Catchment Implementation Strategy (SIRCIS) continues at an exceptional rate despite the continued drought, the drop in commodity prices for our irrigator partners and the decline in Commonwealth and State core funding.

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

Much of our farm planning to date has been based on an unchanged regional delivery system. However, the delivery system is changing with irrigation channels being modernised, requiring farm irrigation systems to change so that full benefits are captured.

Significant efforts were devoted to development of the On-Farm Irrigation Efficiency Program funding bid, the 'Farm Water Program', and the subsequent detailed business case. Irrigation improvement projects were developed for 179 farms as part of the business case and of these, 84 were selected to be part of the Goulburn Broken CMA's proposed \$25.8 million first round program, which was announced by the Australian Government in March.

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

- See www.gbcma.vic.gov.au: Maps of incentives in the Shepparton Irrigation Region to June 2010 (related to drainage reuse system grants, whole farm plans and automated irrigation grants).
- See case studies at www.gbcma.vic.gov.au: *Irrigation farm reconfiguration, water savings and revegetation near Barmah* and *Groundwater pump incentive and drainage – Tapping the benefits*.

Groundwater and Salinity Management Program

- Groundwater investigations were completed at 17 sites. No sites were suitable for private pumping. Three investigations are in progress and a prioritisation process based on rolling five-year watertable average depth is being implemented. There are 23 irrigators on the newly prioritised waiting list.
- Five new and four upgraded shallow private groundwater pumps were completed, with three new pumps in progress. Completed private works have produced 1,827 megalitres of groundwater for irrigation and therefore it is assumed that 1,827 hectares of irrigated land has been protected from high watertables.
- The Millewa Nature Conservation Reserve Groundwater and Salinity Threat Mitigation Management Plan was developed. This plan provides the framework to actively manage the groundwater and salinisation risk at the Millewa Nature Conservation Reserve.
- The groundwater investigation of the environmental threat of irrigation to the Kanyapella Basin is nearing completion.

Surface Water Management Program

- Sixteen kilometres of primary surface water management schemes were designed, including Mosquito 36 and Murray Valley Drain 11 stages 2 and 3. Construction totalled six kilometres and included Stanhope Stage 2, Murray Valley Drain 11 pump station, Mosquito Drain 40 and Muckatah minor works.
- The feasibility design of 11 kilometres of community surface water management schemes was completed, including a cultural heritage management plan for Muckatah 2/3–3/8P.
- Four kilometres of community surface drains (Muckatah 4P) were constructed, which will protect 243 hectares productive land. No new community surface drains were transferred from the City of Greater Shepparton to G-MW, however work progressed on the transfer of Ardmona 7P.
- Four wetland infrastructure scoping reports were completed for Gaynor, One Tree – Two Tree, Mansfield and Kinnaird’s Swamps.
- Works in the Kanyapella Basin were undertaken, including installation of two control structures on the Yambuna and Warrigal Creeks, and preparation works for a low-level bank. These works will assist in controlling environmental water deliveries in the future.
- Seventy six reuse systems draining 4,518 hectares were installed, bringing the total number of reuse systems constructed with assistance from this scheme to 625, serving 40,188 hectares.
- Seven automatic irrigation systems were installed under the scheme, serving 472 hectares. This brings the total number of automatic irrigation systems constructed with assistance from this scheme to 149, serving 8,710 hectares.
- Thirty landholders received support to undertake environmental and tree growing projects. They erected 12.96 kilometres of fencing, which helped to protect 73.5 hectares of remnant vegetation, three hectares of wetland, 86.9 hectares of tube-stock plantings and 24.4 hectares of direct seeding. Over 26,960 plants were planted and 66 kilometres of direct seeding lines were sown.
- The report on optional environmental watering points for high value wetlands within the SIR was completed for NVIRP. The report addresses issues for each wetland, providing recommendations on infrastructure, which will help to reduce the impact of irrigation modernisation works on wetlands.
- Environmental site assessment work for NVIRP across the Goulburn Murray Irrigation District comprised:
 - 1,780 assessments on meters and 444 on access to the meter sites
 - 478 assessments on channel regulators and 33 on access to the regulators
 - 90 kilometres of channel lining assessments, which equates to 180 kilometres of channel bank assessments
 - 65 connections’ business cases.

Farm and Environment Program

- Whole farm plans on 212 properties covering 16,018 hectares were completed, including 24 revised modernised plans, bringing the total number of whole farm plans under this incentive to 3,904, covering 269,232 hectares or 85.0 per cent of the irrigated area.

Actions 2007-08, 2008-09 and 2009-10

Action ⁱ		From funds received through Corporate Plan ⁱⁱ				
		Achieved		Target ⁱⁱⁱ	% achieved	
		2007-08	2008-09	2009-10		
Surface water action						
Land forming/laser grading	ha	8,525	20,476	13,745	5,000	275
Drain – primary built ⁱⁱⁱ	km	33	5.5	6	5	120
Drain – community built	km	0	5.3	4	6	67
Farm reuse systems installed ^{iv}	no.	48	66	76	47	162
Drain – additional water diverted from regional drains ^v	ML	200	0	0	0	-
Irrigation systems – improved ^{vi}	ha	8,967	21,083	14,217	5,400	263
Sub-surface water action						
New groundwater pumps – public installed	no.	1	1			
New groundwater pumps – private installed	no.	20	11	9	6	150
Increased volume of water able to be pumped	ML	3,237	1,794	1,827	600	305
Planning for works action						
Whole farm plans	no.	145	247	212	160	133

i Many actions primarily aimed at achieving salinity targets contribute to other targets also, 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 6 kilometres were constructed during 2009-10 and 3 kilometres were prepared for handover to Goulburn-Murray Water for them to manage. Handed-over drains not accounted for in 2005-06 and 2006-07 were recorded in 2007-08.

iv Reuse dams allow for the collection and re-irrigation of high nutrient run-off, reducing the water and nutrient loads leaving the farm.

v High flow diversion. None completed because of dry conditions.

vi Improved systems include laser grading, automatic irrigation and micro-irrigation.

Collaborations and communities

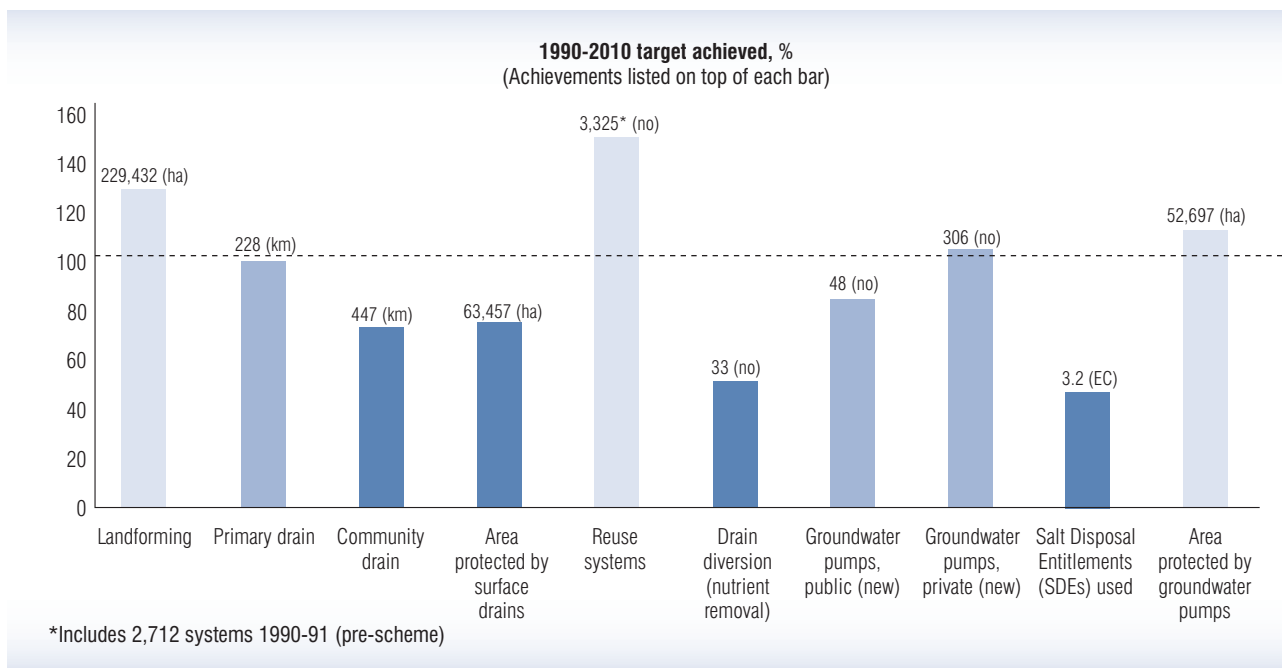
- A new environmental projects technical working group was established as part of the Groundwater and Salinity Management Program.
- SIRIC worked closely with NVIRP and other modernisation activities to ensure that water saving projects are consistent with and complementary to implementation of the SIRCIS. 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 supported local government funding applications to the Strengthening Basin Communities Program and, conversely, local government supported the Goulburn Broken CMA's On-Farm Irrigation Efficiency Program (Farm Water Program) funding bid.
- SIRIC allocated \$30,085 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.
- See also the 'Shepparton Irrigation Region Implementation Committee' section on page 23.

Planning and responding (includes research and development)

- Documentation of the 2007 SIRCIS review is being finalised.
- 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 'C-Type Project', which investigated potential management options for areas with low to marginal pumping potential with any water salinity, 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 initiated 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 monitoring requirements commenced.
- The 2008-09 annual report to the Murray Darling Basin Authority's Basin Salinity Management Plan was completed.
- The 2008-09 report for the Irrigation Drainage Memorandum of Understanding was completed.
- The 2008-09 report on nutrient loads from SIR surface drains was completed.
- The Catchment and Operation Plan for the SIR was almost completed and the Catchment and Operation Plan for the Barmah-Nathalia Catchment is well underway.

Long-term strategy implementation progress

- Farm works (landforming, reuse systems, private groundwater pumps) are ahead of schedule.
- 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 being reviewed because of the likely large and unforeseen decline in salinity threat (see Catchment condition commentary).
- Tasks to establish management systems (stakeholder forums, partnerships, technical input, review processes etc) have been thoroughly completed.
- 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 annual report to the Murray-Darling Basing Authority was once again well received.



Catchment condition

- Threats of land salinisation, waterlogging and saline inflows into the River Murray have probably reduced significantly due to:
 - a probable drying climate (less water is available to go through to the watertable since the extended dry period began in 1996)
 - 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 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, 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 salinity threat is likely to be reducing. The review considers how resilient the SIR has become in terms of salinity: in the unlikely 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 Shepparton Irrigation Region Salt and Water Balance Project that is underway is assessing the impacts on the shallow groundwater table from a changing climate and reducing or changing irrigation allocations and water availability. 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 2010. 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.
- Large sales of irrigation water and reduced allocations have already resulted in many intensively irrigated properties becoming part of the 'new dryland'. A project is being proposed to help landholders and policy makers decide the future of these properties; some properties might be better used for purposes other than agriculture.

Investment area 1b – Dryland salinity: watertables and River Murray salinity

Compiled by Mark Cotter, Pat Feehan, Ian Oppy, Melanie Haddow and Rod McLennan. See www.gbca.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	2010	Certainty of rating	Trend
2009-10 performance	Outputs (against targets set as a result of funds received)	n.a.	n.a.	Exceeded target	High	n.a.
Long-term strategy implementation progress	Outputs (scheduled between 1990 and 2009)	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 91), including an explanation of the decision focus and ratings.

ⁱⁱ Ratings for 1990 have been determined using our understanding in 2010 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, when the Catchment is considered to have been in excellent condition.

Background

Salinity has been seen as the biggest natural resource challenge in the Goulburn Broken Dryland over the last two decades. Growing recognition that the Goulburn Broken Catchment community may not have enough resources to address salinity at the Catchment scale is forcing reassessments of the importance of the issue to the local community and of implications on Federal Water Act 2007 obligations.

The Goulburn Broken Dryland Salinity Management Plan's target (set in 1990) was to achieve hydrological equilibrium (inputs of water from rain match outputs in stream flows and groundwater flows). Current end-of-valley-targets targets, which the Murray-Darling Basin Authority is reviewing in 2009-10, are to:

- ensure no net increase in stream salinity in the Goulburn River upstream of Goulburn Weir
 - limit salinity increase to 26 ECs in the Broken River upstream of Casey's Weir.
- The Goulburn Broken Dryland Salinity Management Plan's adjusted targets, developed in 2000 and 2002 respectively, are 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
 - save 1,500 hectares of foothills and river valleys of highland areas from salinisation by 2050.

The basis for determining the area of land to be affected by dryland salinity is flawed and the target area of 1,500 hectares is an order of magnitude too high. This will be the subject of further research in 2010-11.

Government investment, \$000

2007-08	2008-09	2009-10	2010-11 ⁱ	Trend
2,960	1,800	1,821	1,580	↓

ⁱ Forecast based on funding advice at August 2010.

Major strategic references

- Dryland Salinity Management Plan 1989 (and reviews 1995, 2001, 2008)
- (Murray Darling) Basin Salinity Management Strategy 2001-2015

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 is 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, such as the Broken Goulburn Implementation Committee.

2009-10 performance

Despite diversion of resources to fire recovery, annual targets across the whole natural resource management program in the dryland were generally met and sometimes exceeded.

Implementation of the Victorian Bushfire Recovery Program was again a major focus. The Australian Government's \$4.98 million commitment to fire recovery in June 2010 was a great fillip for the bushfire-affected community and a relief for staff, particularly those who were directly affected by the 2009 Black Saturday bushfires.

We had exceptionally good rains in late 2009 and early 2010, which helped us achieve high levels of revegetation.

A project to determine the process for B register (salinity) reporting (as required under the Federal Water Act) was initiated, in partnership with North Central CMA and DSE.

Refer also to the Broken Goulburn Implementation Committee section on page 20 for further achievements, especially integration of complementary issues and community involvement.

Works and extension

- Remnant vegetation and revegetation outputs exceeded targets, due largely to the Victorian Bushfire Recovery Program and complementary investment areas.
- The main activity for managing dryland salinity is revegetation. High levels of revegetation and fencing of remnants achieved reflect landholder commitment following good rains and excellent efforts by staff: many DPI and Goulburn Broken CMA staff were diverted, at least partially, to respond to the needs of the bushfire-affected community.
- The decline in whole farm planning is a result of staff diverting their efforts into fire recovery.
- Landholders are not placing a high priority on managing saline discharge areas.

Actions 2007-08, 2008-09 and 2009-10

Action		From funds received through Corporate Plan ⁱ				
		Achieved ⁱ			Target	% achieved
		2007-08	2008-09	2009-10		
Fence remnant vegetation ⁱⁱ	ha		1,660	1,217	675	180
Irrigation drainage environment plans	no.		6	9	5	180
New irrigation referrals dryland zone	ha		8	11	5	220
Improved irrigation dryland zone ⁱⁱⁱ	ha		1,976	425	750	57
Sub-surface water action						
Revegetation – plant natives ^{iv}	ha	460	814	1,311	1,363	96
Pasture – plant	ha	391	75	152	100	152
New groundwater pumps – public installed	no.	1	1	-	-	-
Planning for works action						
Whole farm plans - Level 1 ^v	no.		179	200	230	87
Whole farm plans prepared - Level 2 ^v	no.	369	94	47	65	72

i Achievements include those by complementary investment areas (Riparian and instream habitat and channel form and Biodiversity).

ii Includes 360 hectares of remnant protection in Bushfire Recovery Program in 2009-10.

iii An aggregate of properties/irrigated areas receiving intensive extension support for irrigation whole farm planning, system checks, soil moisture monitoring equipment/scheduling, and/or 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 Goulburn Broken CMA is working closely with DSE to assess statewide salinity threats, which will complement the assets based approach that is being developed. The same process will be used to evaluate the role of models in salinity planning, which should inform the B register work.
- The Goulburn Broken CMA is helping develop the State Soil Health Strategy, which is being led by DSE as part of implementing the State Government's white paper on land and biodiversity at a time of climate change. This will help to determine the role that Goulburn Broken CMA will have in legitimising biodiversity and in promoting integrated agriculture.
- 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)

- 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).
- The Catchment community will respond to end-of-valley-targets being set as part the Murray-Darling Basin Authority's Basin level review of salinity targets. The localised salinity threat assessment being undertaken simultaneously will provide an important statewide context for the Goulburn Broken salinity issue.
- 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.
- Issues around the methods being used for DSE and DPI catchment modelling need to be resolved so that regions can use the models when planning. Although the process for resolving the issues is not clear, the region will work with DSE and DPI to overcome shortcomings of different approaches.
- Groundwater-salt governance arrangements continue to be managed through the Groundwater Salt Management Coordinating Group. In 2010-11, integrating research and development across the Goulburn Broken Catchment will be an important step in integrating the entire salinity management program across the Catchment.
- Hydrograph data shows a marked change in trend in many bores, although some hydrographs reflect little of the past twelve years' below average rainfall. Falling water tables reduce baseflow, and flow from springs and bogs into streams also reduce the risk of dryland salt discharge (although areas of active discharge may not change much). It will take several years of above-average rainfall to reverse the falling trend.

Long-term strategy implementation progress

- 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.
- 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 over-estimates. 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.
- Tasks to establish management systems (stakeholder forums, partnerships, technical input, review processes etc) have been thoroughly 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.
- The Goulburn Broken Catchment is widely recognised as one of the best researched in Australia in terms of dryland salinity and is often used to trial new approaches.

Catchment condition

- The higher rainfall of late 2009 and early 2010 is unlikely to have caused any significant increase in the salinity threat beyond mobilising surface salt in discharge prone areas. It will take several years of above average rainfall to reconnect surface and groundwater systems in the upland and plains.
- The long-term threat to the River Murray remains, driven by groundwater intrusions into the main waterways of the Catchment.
- It is very difficult to determine the change in connectivity between surface and groundwater systems based on changed climatic patterns and therefore to estimate the impact on changed salt exports. Best estimates are that flows to the River Murray are likely to be more saline in a drying climate with a reduction in freshwater flows, but the impact on salt flows in streams are uncertain.
- 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 (legacy of history)
 - the consequences of the drying climate 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 current statewide salinity threat assessment may impact on Catchment priorities.
- The Murray-Darling Basin Plan (draft expected to be released in 2010-11) will likely drive salinity management changes over the several years.
- Reconfiguration in the irrigation districts will create a 'New Dryland'. The Goulburn Broken CMA will undertake a risk and opportunity assessment of developments, which includes the possibility of integrating salinity planning across the Catchment rather than maintaining the artificial divide between dryland and the Shepparton Irrigation Region.
- 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.

Investment area 2 – River health

Compiled by: Simon Casanelia, Wayne Tennant, Mark Turner, Scott Morath, Melanie Haddow and Rod McLennan

Background

Three discrete but highly connected investment areas are reported in this section under river health:

- 2a Environmental flows and water supply
- 2b Riparian and instream habitat and channel form
- 2c Water quality (nutrients) in rivers and streams.

Waterway management and general river health 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 1,000 statutory applications received annually by the Goulburn Broken CMA relate directly to protecting waterway health. This is carried out under Goulburn Broken CMA By law No. 1 and ensures that works and activities do not diminish waterway values. (See the 'Flood protection' section on page 118 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 and streams 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.” This vision is retained within the River Health Strategy Addendum.

In 2009-10 the Goulburn Broken CMA developed an addendum to the GB RRHS to guide investment over the next 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.

Rivers and streams underpin our livelihoods, provide water for agriculture, commercial and domestic uses and are valued for recreation and aesthetic reasons, as habitat for flora and fauna, and are often central to the culture of Indigenous Australians. Communities within the Goulburn Broken Catchment and beyond benefit from the rivers and the water generated from the Catchment. The Goulburn Broken Catchment provides major water resources for Victoria and the Murray Darling Basin, generating 11 per cent of the 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
- high value reaches meeting ecological flow objectives
- reduction or improvement in nutrient loads
- 550 kilometres of river with protection and enhancement in riparian condition

Government investmentⁱ, \$000

2007-08	2008-09	2009-10 ⁱⁱ	2010-11 ⁱⁱⁱ	Trend
13,020	13,630	12,398	4,239	↓

- i Includes all three investment areas under River health.
- ii Includes \$3.5 million for fire recovery for 2009-10 activities.
- iii Forecast based on funding advice at August 2010. 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.

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 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

- 140 kilometres of river where instream habitat has been enhanced or reinstated.

River regulation, pollution, vegetation removal and other catchment disturbances have impacted on instream, riparian, wetland and floodplain health.

Catastrophic fires in 2006 and 2009 impacted significantly on natural resources in the upper catchments, especially native vegetation and water quality. The River Health Program responded by installing 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.

Climate change and river health

The River 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.

Dry inflow contingency plans, 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.

Environmental flows and water supply

Environmental water that is the environment's legal share of water is the Environmental Water Reserve. It 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 and unregulated river flows made available as a result of rules on consumptive use (conditions on bulk entitlements and water licences, and caps on water use).

Environmental entitlements are held by the Minister for Environment, who delegates management responsibility to catchment management authorities. 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, river flow regulation, and the delivery of water, water-use regulation and wastewater disposal services. Catchment management authorities work with the holders of bulk entitlements and water licences to manage other environmental water.

Since the mid 1990s, State and Australian 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.

The Victorian Government launched a comprehensive program for using the State's scarce water resources wisely via its 2004 white paper, *Our Water Our Future*. This program provides for efficient, reliable, flexible water for urban, agricultural and business use, and increased flows to rivers and wetlands to restore and protect their health. Under the program, all elements of the water cycle are to be managed with a sustainable water allocation regime and environmental flows integrated with other catchment management activities.

The GB RRHS plans to improve river health by determining environmental flow needs and managing flow regimes, particularly in the Goulburn River, Broken River, Yea River, Seven Creeks, Broken Creek and King Parrot 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 European settlement and the Regional Catchment Strategy recognises the need to improve them. The recent dry conditions have altered water regimes even further.

Water supply and delivery efficiency are critical to improved environmental and productive outcomes, but specific targets are not yet set for the Catchment. 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 condition of the bed 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 control of sediments within high priority areas where there is impact on aquatic flora and fauna through reduced water quality, 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 and water quality.

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.

Water quality management has had an emphasis on responding to decreasing inflows over the last five years, 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.

2009-10 performance – River health actions table and climate change activities

Actions 2007-08, 2008-09 and 2009-10

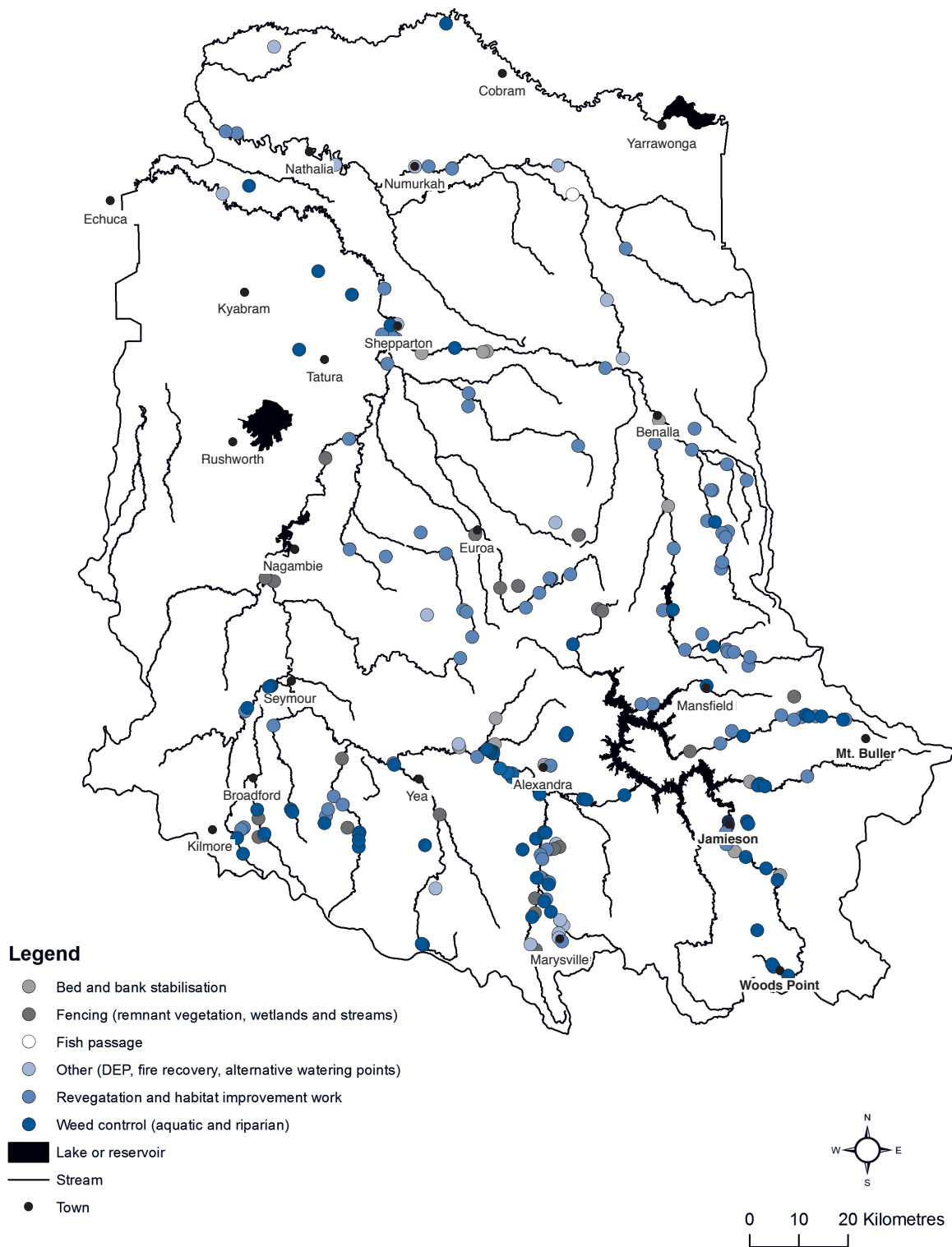
Action		From funds received through Corporate Plan ⁱ				
		Achieved ⁱ			Target	% achieved
		2007-08	2008-09	2009-10		
Stock grazing action						
Fence wetland remnant	ha	1,794	609	8	18	44
Fence stream/river remnant	ha	2,536	2,563	63	81	78
Off-stream watering	no.	95	122	48	40	120
Nutrient-rich and turbid water & suspended solids action						
Stormwater management projects ⁱⁱ	no.	1	1	1	2	50
Instream and near-stream erosion action						
Bank protection actions	km	13	8	5.35	10	55
Instream & tributary erosion controlled	km	543	102	207	53	391
Changed flow-pattern action						
Water allocated eg wetlands	ML	0	840	290	1,000	29
Weed invasion action						
Weeds – aquatic weeds controlled (managed) ⁱⁱⁱ	ha	53	26	27	163	17
Habitat loss management						
Rock ramp fishway ^{iv}	no.			1	0	-
Fish barrier removal	no.	8	1	0	0	-
Establish Significantly Enhanced Aquatic Refugia	no.	30	59	16	11	155
Surface Water action^v						
Drain – primary ^{vi}	km	9	6	6	5	120
Drain – community	km	0	5	4	6	67
Farm reuse system ^{vii}	no.	48	66	76	47	162
Drain – divert water	ML	200	0	0	0	-
Irrigation systems – improved ^{viii}	ha	8,967	23,059	14,217	5,400	263

- i Achievements include those from River health investment areas (Environmental flows and water supply, 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.
- ii Stormwater management projects are undertaken on a one-to-one funding basis with local government. Projects included installing a gross pollutant trap at Seven Creeks Euroa.
- iii 2009-10 target for aquatic weed control was overly optimistic (it was far greater than in previous years).
- iv Target was 0 because new funding arrived during the year (after Corporate Plan was finalised)
- v 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.
- vi 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.
- vii Reuse dams allow for the collection and re-irrigation of high nutrient run-off, reducing the water and nutrient loads leaving the farm.
- viii 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.

Goulburn Broken river health work sites 2009-10



(c) The State of Victoria Goulburn Broken Catchment Management Authority 2010

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2009-10 performance – Investment area 2a – Environmental flows and water supply

2009-10 performance (outputs achieved against targets set as a result of funds received) On target

Continuing low inflows caused by ongoing drought conditions are degrading general river health and resulting in localised water quality problems. The Goulburn Broken CMA, in partnership with other government agencies, is responding by delivering environmental water and translocating and reintroducing native fish populations.

Key lower Goulburn River floodplain wetlands and the lower Broken Creek were again the focus of environmental water delivery (see tables below).

Works and operations

Environmental water delivered to wetlands in 2009-10*

System	Quantity, ML	Timing
Doctors Swamp	40	October
Reedy Swamp	300	November, December
Black Swamp	80	March
Kinnairds Swamp	400	April-May
Smiths Creek (Barmah)	440	November
Gulf Creek (Barmah)	250	November
Gulf Creek (Barmah)	27	November
Boals Deadwoods wetland (Barmah)	519	November
Top Island wetland (Barmah)	776	November
Total	2,832	

* Table notes:

- i The purpose of all watering was to provide drought refuge, except for Doctors Swamp, which was a trial delivery.
- ii The source of all water was from the Victorian River Murray Flora and Fauna Bulk Entitlement (DSE), apart from the 250 ML Gulf Creek water, which was from environmental water provisions under The Living Murray Program (Murray-Darling Basin Authority).

- A trial flood of Doctors Swamp (near Murchison) was undertaken to see how the flow into the relatively flat wetland via a regulator related to a nearby overflow sill. The findings have implications for future use of larger Environmental Water Allocation releases. The trial was conducted on 2 October 2009 while a window of opportunity for gravity diversion was available. The resulting minor flow also had some localised environmental benefits for wetland vegetation and fauna.
- The creation of drought refuges within the Goulburn Broken Catchment is being undertaken as part of the Goulburn Broken CMA's responsibility, under Commonwealth and State laws, to protect threatened species. The water being used is an environmental entitlement, legally set aside to protect rivers and wetlands. Use of the water doesn't affect any other water allocations. The refuges are being provided with the minimum amount of water to enable species survival during the extended dry period.
- Goulburn and Broken bulk water entitlements were again qualified by the Minister for Water to conserve water for critical human needs:
 - on 1 July 2009 McCoy's Bridge and Goulburn Weir flows were reduced from 400 and 250 megalitres per day respectively to 150 megalitres per day; however, flows generally stayed above 200 megalitres per day
 - the reinstatement of minimum flows was delayed from 15 September to 9 October to build a water reserve for later environmental use
 - the 1,934 megalitres reserve was used in March to extend and slow the rate of fall of a natural flush along the Goulburn River
 - Broken River minimum flows were set to zero on 1 July 2009 and reinstated on 1 February 2010; G-MW maintained some flow in the river throughout the year
 - G-MW maintained flows in the lower Broken Creek to manage water quality risks, including provision of passing flows of 50–250 megalitres per day between late September and the end of April using Inter Valley Transfers of water from the Goulburn system to the Murray River
 - using 1,451 megalitres from the Goulburn Water Quality Reserve in January to increase passing flows to manage a build up of Azolla, a native floating aquatic weed, and to manage low dissolved oxygen in the Broken Creek. (The Broken Creek is a significant waterway for native fish, however, a history of eutrophic inflows has created a legacy of Azolla blooms and organically enriched sediments that, when combined with low flows and high temperatures, usually causes significantly depressed dissolved oxygen conditions that can result in large numbers of fish deaths.)
- See also case study at www.gbcma.vic.gov.au: *Flows in Broken and Boosey Creeks during dry times*.

Environmental water used for water quality management in the Broken Creek during 2009-10*

Quantity, ML	Timing	Source
28,240	22-09-09 to 10-05-10	Goulburn valley Inter-valley transfer
818	14-01-10 to 27-01-10	Goulburn water quality account
5,581	intermittent from: 01-07-09 to 17-05-10	Victorian Murray tributary flow

* Table notes:

- i The purpose of all watering was to elevate low dissolved oxygen levels to avoid large numbers of fish deaths.
- ii Data from Thiess up to 6 April. There are expected to be some slight differences to these figures once the final Thiess data is incorporated.

- The flow volumes in the table above show that different water accounts were accessed to ensure a small continuous flow in the Broken Creek, especially during periods of high temperature in the summer months. The volumes represent the quantity of water that passed through Rices Weir (the most downstream weir on the system where low dissolved oxygen problems are greatest), prior to immediately outfalling into the River Murray. The water was not 'lost' to the regulated system: it was largely rerouted to achieve multiple benefits. Despite efforts, dissolved oxygen still fell to concerning levels during very hot days. Because there were no major fish deaths, even though several native fish species were present, the management strategy was deemed a success and will be used again should similar conditions arise.

Collaborations and communities

- As part of the Northern Region Sustainable Water Strategy process, the River and Water Contingency Group continued meeting to discuss issues related to river health, flows and water quality. The Contingency Group approved the 2009-10 Dry Inflow Contingency Plan which was submitted to DSE, emergency response procedures were trialled and reviewed, real time water quality monitoring were reviewed and the community was advised of potential water quality issues via various media.
- Barmah-Millewa Forest collaborations included:
 - cross-state water management with New South Wales and Victorian agencies
 - monitoring Red Gum and Giant Rush with the Commonwealth Scientific and Industrial Research Organisation (CSIRO)
 - Giant Rush burning trials with Yorta Yorta and Parks Victoria.
- Goulburn Broken CMA is represented on the Northern Victoria Irrigation Renewal Project's (NVRP) Environmental Technical Advisory Committee.
- The Wetland Working Group continued to provide community input to the management of wetlands in the Catchment.
- 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 Network, Red Gum Expert Scientific Panel and National Water Commission's optimising native fish habitat project.

Planning and responding (includes research and development)

- Goulburn Broken CMA, DPI, DSE, G-MW, Field and Game Australia and local bird enthusiasts monitored the ecological response of environmental watering to wetlands.
- DPI continued acoustic monitoring at Reedy Swamp.
- Fish surveys of suspected drought refuge pools were continued on Cornella Creek and within Barmah Forest.
- Goulburn Broken CMA supported Arthur Rylah Institute in translocation of Macquarie Perch in Hughes Creek following low inflows. See case study at www.gbcma.vic.gov.au: Carp removal from Hughes Creek benefits endangered Macquarie Perch.
- Work was commissioned through the Australian Platypus Conservancy regarding the health and extent of platypus populations in the Broken Creek, following low flows and community concern.
- The Goulburn Broken CMA supported the Yorta Yorta Aboriginal Corporation in establishing a native turtle monitoring program in Barmah Forest.
- The Goulburn Broken CMA managed the Environmental Watering Plan for the Broken Creek through the appointment of a scientific panel.
- Real time (website accessible) water quality monitoring of the Goulburn River continued.
- The Lake Eildon to River Murray Goulburn Environmental Flow Hydraulics Study identified flows for environmental assets and potential conflicts with economic and social assets. The interactions of tributaries with possible environmental flow releases were also assessed.
- The 2009-10 Dry Inflow Contingency Plan was completed and submitted to DSE.
- Regional partners responded to a fish death incident on Boosey Creek in late summer 2009-10. The process was coordinated under the Regional Water and River Contingency Planning Group.
- Goulburn Broken CMA staff continued to support the development of the Victorian Government's Northern Region Sustainable Water Strategy, which was completed in late 2009. This Strategy is important for environmental flows, particularly under climate change, and includes proposals to enhance the use of environmental water by including carryover, reserve policy and reuse or return flows.
- 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.
- Index of Wetland Condition assessments were conducted at 116 wetlands across the Catchment, including 30 sites with Barmah Forest.
- The scoping of works for helping deliver environmental water to key wetlands in the SIR was commissioned.
- Papers were submitted and accepted at a range of national symposiums and workshops, including the Barmah-Millewa Forests Research Forum, 2009 Murray-Darling Basin Authority's Native Fish Forum, Shanxi Water Resources Bureau (Senior Management Seminars, Melbourne University) and Shanxi Water Resources Bureau-Management, Taiyuan. (See case study at www.gbcma.vic.gov.au: *Goulburn Broken CMA involved in Australia-China AusAID partnership.*)
- Papers were also accepted in refereed journals, including Freshwater Biology.

2009-10 performance – Investment area 2b – Riparian and instream habitat and channel form

2009-10 performance (outputs achieved against targets set as a result of funds received) On target

Significant effort and resources are being invested in recovering damage along river frontages caused by the February 2009 Black Saturday bushfires. The Goulburn Broken CMA, in partnership with the community and government agencies, have focused on a range of natural resource and community based activities, including fencing, revegetation, pest plant and animal control, control of sediments, water quality monitoring and employment. See case study at www.gbcma.vic.gov.au: Landcare's fencers without boundaries project restores fences in fire-affected area'.

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.

Works to improve instream habitat were commissioned on the Broken River, Goulburn River and Broken Creeks.

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.

Slackwater habitats were monitored on the Broken River to assess the effectiveness of reintroducing large woody debris into lowland streams.

A joint project into the protection of Freshwater Catfish was supported through the Victorian Investment Framework within the mid Goulburn River floodplain.

River Red Gums that had accumulated in Barmah Forest streams were removed to maintain channel hydrology and improve fish passage.

Works and operations

- 2,570 hectares of weeds were treated along stream frontages, mostly through the Fire Recovery Program.
- Pools were constructed and woody habitat was modified and installed along the Broken and Boosey Creek. Goulburn Broken CMA supervised the project and it was co-funded by the Moira Shire and the Tungamah Fishing Club.
- An assessment of riparian recovery using several methodologies, including the index of stream condition, was conducted in the upper Goulburn catchment. This followed weed control, fencing and revegetation after the 2006 and 2009 fires.
- Irvine's weir on the Broken Creek was upgraded to provide for fish passage.
- Activities along the Goulburn River between Nagambie and Shepparton included:
 - monitoring fish communities (a report is pending)
 - completing the Shepparton weir fishway upgrade, which allows for a greater range of fish species over a greater range of flows
 - stabilising significant lateral erosion of the bank near Murchison using a low-flow pipe and a high-flow rock chute
 - ongoing weed management and enhancement of frontages.

- Activities along the Goulburn River between Eildon and Nagambie included fencing, revegetating, managing weeds such as willows, and stabilising banks.
- The Sugarloaf Creek ford crossing immediately upstream of the Goulburn River confluence was remodelled to improve fish passage. This was undertaken with a riparian grants initiative for fencing and revegetation.
- The Streamlining Methodology was trialled at project sites within the Large Scale River Restoration Program on the Goulburn River.
- An audit of the Broken River Vision Project was undertaken in partnership with DSE.

Collaborations and communities

- Crown licence frontages are being reviewed to improve management practices. A river health officer was funded and employed through DSE's Crown Land Management section and the project is being managed through a regional agency committee involving Goulburn Broken CMA and DSE. Additional funds have been received to extend the project.
- Work continued on the control of Cabomba, a 'Weed of National Significance', at Lake Benalla and the Broken River. The Rural City of Benalla initiated a control trial, Goulburn Broken CMA commissioned a literature review, and DPI and G-MW provided support. A detailed field evaluation of the extent of satellite populations has been completed and a further draw down of Lake Benalla to assist weed management was undertaken.
- 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.
- A survey to understand landholder and community attitudes towards the implementation of the Holland's Creek native fish demonstration reach was completed.
- The Goulburn Broken CMA supported State related activities, including streamlining and forecasting projects and the development of AVIRA (Aquatic Value Identification and Risk Assessment; a database that contains information on the 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 participated in initiatives under Murray-Darling Basin Authority's Native Fish Strategy.
- The Goulburn Broken CMA provided major input into the City of Greater Shepparton's RiverConnect project.

Planning and responding (including research and development)

- The Broken system and Goulburn River are two of eight rivers in the three year Victorian Environmental Flows Monitoring and Assessment Program. Monitoring in 2009-10 included fish and macro-invertebrate sampling.
- Floristic and hydrologic values of spring soaks in the Strathbogie Ranges and Highlands were completed. The effectiveness of different management techniques to maintain or improve the condition of these wetlands are being investigated.
- The master plan for the Yielma property within the Barmah-Millewa Wetlands is currently being implemented including the direct seeding of native vegetation.
- Urgent recovery works within the areas affected by Black Saturday bushfires were undertaken on the basis of detailed stream assessments.
- An investigation into carbon sources being used by instream organisms was conducted to determine if the reduction of organic matter resulting from the 2009 bushfires impacts on aquatic ecology.
- A range of threatened species programs were initiated in response to the 2009 bushfires.
- Goulburn Broken CMA supported the development of a draft Monitoring and Restoration Project Brief for rehabilitating Winton Wetlands. On behalf of the Winton Wetlands Committee of Management, the Goulburn Broken CMA assessed the current distribution and composition of wetland vegetation at Lake Mokoan to inform rehabilitation.
- In the spring and early summer of 2009, DSE and Victoria's catchment management authorities assessed the condition of 650 wetlands across the State. In the Goulburn Broken Catchment, 76 wetlands were assessed, including Barmah Forest wetlands, Goulburn River floodplain wetlands and Central Highlands peatlands. Fourteen were found to be in poor to very poor condition, 40 were in moderate condition, 20 were in good condition, 1 was in excellent condition, and 52 had poor to very poor hydrology. The wetlands were assessed using a method developed by DSE called the Index of Wetland Condition, which assesses the catchment, physical form, hydrology, water properties, soils and vegetation of the wetlands. Details of the method can be found at www.dse.vic.gov.au/iwc.

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); a summary document outlining future investment in Macquarie Perch was prepared in partnership with Arthur Rylah Institute
 - 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 comments were provided on the Draft Flora and Fauna Guarantee Action Statement for Macquarie Perch.
- The instream habitat of the Broken Creek between Nathalia and Numurkah was assessed. Arthur Rylah Institute will research habitat characteristics and provide recommendations for improving instream diversity.
- A fishway was installed at Sugarloaf Creek near Seymour, opening up 50 kilometres of stream to native fish.
- Habitat pools are being reassessed post-decommissioning of the Tungamah Pipeline.
- 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.
- 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.
- Important isolated fish populations within waterways impacted by the extended drought and by potential sediment slugs following rain in fire-damaged areas were monitored by DSE's Arthur Rylah Institute: Hughes Creek, King Parrot Creek, Luke Creek, Robertson Gully, Rubicon River, Keppel Hut Creek and upper Taggerty River.
- Impacts of turbidity on native fish communities in the Broken River are being monitored to assess the effects of the decommissioning of Lake Mokoan.
- A PIT (Passive Integrated Transponder) tag reader was installed at the Shepparton weir to assess the effectiveness of migration and movement of native fish, including Murray Cod and Trout Cod.
- The effect on native fish of installing large wood in the Broken River is being monitored.

2009-10 performance – Investment area 2c – Water quality (nutrients) in rivers and streams

2009-10 performance (outputs achieved against targets set as a result of funds received) On target

Continued dry inflow conditions and catastrophic fire events and their potential impact on water quality drove much of the efforts in this investment area. Key actions included the establishment of real-time water quality monitoring to respond to water quality issues and to understand the level of impact on receiving waters.

Very high levels of action that target removal of excess rainfall run-off from irrigated land continue to be achieved, helping to alleviate the threats of nutrient run-off and salinity in wet periods. This is helping to build long-term resilience, even though these benefits are not readily apparent because of the recent long dry period.

Works and operations

- In partnership with the Strathbogie Shire, a trap was installed in Euroa to prevent gross pollutants from entering Seven Creeks.
- The Strathbogie Shire has agreed to ongoing joint projects that improve control of pollutants in urban areas, particularly litter, and to assume responsibility for future operations and maintenance.
- The Goulburn Broken CMA advised the City of Greater Shepparton on the construction of a bioremediation wetland at Mooroopna's Gemmill's Swamp outfall.
- The Goulburn Broken Dairy Nutrient Management Case Study Project managed by DPI is in its third year. Activities such as soil testing and field days are encouraging farmers to sustainably use dairy effluent.

Collaborations and communities

- The Water Quality Committee, which was reinvigorated in 2008-09, continued in 2009-10, involving a range of regional partners.
- The highly successful Goulburn Broken Waterwatch program funded by Victorian and Australian Governments continued. Waterwatch community actions were increasingly linked to the GB RRHS.
- The Goulburn Broken CMA is partnering DPI in improving farm nutrient management in the SIR, particularly on dairy farms.
- The Goulburn Broken CMA was involved in a project commissioned by Goulburn Valley Water in support of Environment Protection Authority's draft risk assessment on wastewater discharges to waterways.

Planning and responding (including research and development)

- Early warning systems were expanded to allow a quick response if heavy rain fell in the upper catchment following Black Saturday bushfires in February 2009.
- Real time, website accessible, water quality monitoring of the lower Broken Creek system and the lower Goulburn River continued.
- 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 continuing drought and low flows and has established a GovDex wiki page (a web based access site to facilitate communication).
- An ecological risk assessment was undertaken on Sunday Creek due to a failure to meet State Environment Protection Policy (Waters of Victoria) water quality objectives.
- Goulburn Broken Waterwatch continued the Ashwatch initiative as part of the 2006 and 2009 Fire Recovery Program.
- The Goulburn Broken CMA remained a partner of the North East Water Quality Monitoring Partnership.
- An evaluation of the requirements of water quality monitoring within the Catchment was commissioned in partnership with G-MW and North Central CMA.

Long-term strategy implementation progress – all River health investment areas

Investment area	Strategy life	2010	Certainty of rating	Trend ⁱ
Environmental flows and water supply	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 91), including an explanation of the decision focus and ratings.

i Assumed to parallel government funding trend.

ii Outputs (scheduled between 2004 and 2010).

iii Outputs (tasks and works scheduled between 2005 and 2010).

iv Outputs (tasks and works scheduled between 1996 and 2010).

Environmental flows and water supply

- In recent years the Goulburn Broken Catchment 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 expected under drier conditions and predicted climate change.
- The Victorian Government, with the 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. The Strategy sets a blueprint for the management of water resources in the northern basins of Victoria.

Riparian and instream habitat and channel form

- Catastrophic fire events have impacted on the condition of riparian zones in much of the upper Goulburn catchment.
- Slow progress has been made in protecting public Crown frontages.
- State Government investment in the Drought Employment Program increased resources over two years, which resulted in a substantial increase in onground works to protect riparian areas. Following the success of the Drought Employment Program and through community support, there is potential to increase investment and undertake greater levels of works to protect waterways.

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.
- Implementation has occurred in many ways: there have been major improvements in wastewater treatment, irrigation reuse, dryland natural resource management programs, and protection of riparian lands.
- Waterwatch has been a highly successful community education program.
- Strong relationships between major stakeholders have been developed, including a multi-agency memorandum of understanding.
- The recent focus has shifted as a result of water quality issues that arise through low flows.

Catchment conditionⁱ – all River health investment areas

Investment Area	Examples of Catchment condition used to inform decisions	1990 ⁱⁱ	Certainty of rating	2010	Certainty of rating	Trend
Environmental flows and water supply	Water regimes of environmental features Management systems	Poor	Low	Very poor	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 91), 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 2010 of what the situation was like in 1990.

Environmental flows and water supply

- Realised water savings have been countered by reduced rainfall and hence water availability. Water availability for irrigation has been well below average and water availability for rivers and wetlands has also been very low. Minimum flows in regulated rivers have usually been maintained but there has been low to no winter or spring higher flows.
- 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.

Riparian and instream habitat and channel form

- Major impacts of the 2009 fires on riparian and instream health are being evaluated by the Goulburn Broken CMA.
- 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 caused varying levels of impact to the natural hydrology, ecosystem functioning, and dependant flora and fauna.
- Drought conditions since 1996 have placed the environmental health of the Catchment's rivers, floodplains and wetlands under stress, including the aquatic dependent species they support such as River Red Gum, Macquarie Perch, Barred Galaxias and Murray Cod. Several unregulated streams may not support existing native fish populations in future.
- There are some cases of large-scale vegetation changes due to a drier water regime, such as Giant Rush colonisation of Barmah Lake, Red Gum establishment in beds of now dry creeks and the death of Red Gums on higher parts of the floodplain.

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 have strengthened significantly through the establishment of a number of regional participant forums.
- The recent focus has shifted as a result of the water quality issues that arise through low flow. A range of new monitoring techniques beyond nutrients is now being deployed within the Catchment.
- 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?

All River health investment areas

Environmental flows and water supply

- The Goulburn Broken CMA will work to secure flexible access to environmental water.
- The Goulburn Broken CMA will increase its capability in delivering water to multiple waterways and wetlands.
- Opportunities for multiple uses of environmental water will be explored.
- Refuge sites for aquatic species will continue to be identified and managed (applies to 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.
- 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 Bushfire Recovery Program will continue.
- The Goulburn Broken CMA will continue to monitor the effectiveness of onground works through appropriate monitoring and evaluation.
- The Goulburn Broken CMA will support facilitation of improved management of public water frontages for the benefit of river health and water quality.

Water quality (nutrients) in rivers and streams

- There is a major focus on fire recovery programs following the February 2009 bushfires in the upper Goulburn Catchment. The real-time monitoring initiative as part of the Bushfire Recovery Program to safeguard water quality will continue.
- 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 health

- 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.
- The plan for a review of the regional river health strategies prior to 2013, based on the direction of the Victorian Strategy for Healthy Rivers, Estuaries and Wetlands, will be developed. The GB RRHS will be expanded to cover the proposed Northern Rivers Natural Resource and Catchment Authority area and will include climate change implications.

Investment area 3 – Biodiversity

Compiled by Vanessa Keogh, Carla Miles, Melanie Haddow, Jenny Wilson, Janice Mentiplay-Smith, Jim Castles, Tim Barlow, 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	2010	Certainty of rating	Trend
2009-10 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 2009)	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 91), including an explanation of the decision focus and ratings.

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

In 2010, the International Year of Biodiversity, the Goulburn Broken CMA updated its Biodiversity Strategy, building upon the Goulburn Broken CMA's 2003 and 2004 biodiversity-focused strategies. The updated Strategy is the basis for the region's biodiversity response to changing environmental stressors, such as the climate, and to institutional changes, especially the merger of the North East, North Central and Goulburn Broken CMAs into the Northern Rivers Catchment Authority in 2011.

"Healthy ecosystems supporting viable populations of flora and fauna" is the new vision developed for the Strategy and resource condition targets were slightly modified to:

- 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 previous threatened species target to "Increase the 2002 conservation status of 80 per cent of threatened flora and 60 per cent of threatened fauna by 2030" was deemed to be of limited value. The Goulburn Broken CMA is exploring a revised target with the Department of Sustainability and Environment (DSE). Further targets relating to the health of aquatic (including wetland) biodiversity within the Catchment are discussed in 'Investment area 2b – Riparian and in stream habitat and channel form'.

Government investmentⁱ, \$000

2007-08	2008-09	2009-10	2010-11 ⁱⁱ	Trend
2,050	1,390	2,512	2,908	●

i Plus co-investment in biodiversity from investment areas.

ii 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

The Strategy's five key areas for action over the next five years are:

- adapting to change
- nurturing partnerships
- investing more wisely
- building on our ecological infrastructure
- legitimising biodiversity conservation.

The Biodiversity Strategy is aligned with National and State strategies, including Australia's Biodiversity Conservation Strategy 2010-2020 Consultation Draft, the Victorian Government's *Securing Our Natural Future*, a white paper for land and biodiversity at a time of climate change, and the recently released Victorian Biodiversity Strategy 2010-2015 Consultation Draft.

Climate change and biodiversity

The status of many species continues to decline and climate change adds another layer of threat: a wave of species extinctions is forecast under runaway climate change scenarios.

Findings from the 2009 climate change and biodiversity risk assessment were incorporated into the updated Biodiversity Strategy for the Goulburn Broken Catchment 2010-2015.

The emphasis of the Goulburn Broken CMA remains on encouraging biodiversity outcomes from carbon sequestration plantings and developing standards, a response echoed in the Victorian Biodiversity Strategy 2010-2015 Consultation Draft.

2009-10 performance

Substantial levels of onground works were again achieved through a range of projects such as the Threatened Grassy Woodlands project and environmental grants, including fencing of 1,347 hectares of remnant vegetation and improvement of 715 hectares of habitat via stewardship agreements. Although achievements were generally on target, they were significantly less than those for previous years, mainly because the Drought Employment Program could not be continued.

In the upper Catchment, a major emphasis for biodiversity management continued to be on addressing the impacts of the 2009 Black Saturday bushfires, which burnt over a third of the Catchment's woody vegetation. More than 800 hectares of critical habitat were protected and habitats for 15 threatened species affected by the fire were rehabilitated. Weeds were controlled on 400 hectares.

The significance of the impact of the fires, and of our recovery efforts, on biodiversity is not yet known.

The Goulburn Broken CMA's Draft Biodiversity Strategy 2010-2015 was prepared and the profile of biodiversity continued to be raised with partner agencies and the community via programs such as Conservation Management Networks.

The Goulburn Broken CMA supported proclamation of a network of national parks along the Murray by the Minister for Environment and Climate Change, Gavin Jennings MLC, in June 2010, which followed Victorian Environmental Assessment Council's recommendations from the River Red Gum Forests Investigation. This will have significant impacts on biodiversity and its management along the Murray. Traditional Owners will be more closely involved in management.

Works and operations

- A total of 705 hectares of threatened grassy woodlands were protected in the Goulburn Broken Catchment. This was achieved through a collaborative project with North East CMA and Murray CMA (New South Wales), funded through the Australian Government's Caring for Our Country program. See case study at www.gbcma.vic.gov.au: *Protection of Box-Gum Grassy Woodlands and Buloke Woodlands*.
- Important sites were purchased or covenanted for conservation: 906 hectares were secured by Trust for Nature's covenanting and revolving fund program, including the brokering of purchase of 114 hectares (three properties) that were transferred to the Crown to add to the National Reserve System.
- A total of 1,347 hectares of remnant native vegetation were fenced through environmental management grants.

- A total of 460 hectares were revegetated (direct seeding and tubestock planting) through environmental management grants and waterway grants, although a reduced emphasis from investors is contributing to lower levels of revegetation.
- Bush Tender was run by DSE to protect high quality native vegetation. The expression of interest process resulted in a strong response from landholders, with successful landholders to be offered contracts in 2010-11.
- A guide to the ecology and conservation of the Bush Stone-curlew was developed with input from landholders of the northern plains of the Goulburn Broken CMA. The Guide will be launched in late 2010 and distributed to landholders across north central and north eastern Victoria.
- In the 12 months following the Black Saturday fires, more than \$6 million was injected into the Catchment's bushfire recovery program by the Victorian and Australian governments. All landholders in the burnt areas were contacted or had access to specialist advice and community support. More than 800 hectares of critical habitat were protected and habitats for 15 threatened species affected by the fire were rehabilitated. Weeds were controlled on 400 hectares.
- The focus of threatened species management was on surveying to assess the population status of the Spotted Tree Frog, Spot-tailed Quoll, Southern Brown Bandicoot, Smoky Mouse and several threatened plant species. The Smoky Mouse was detected at 80 per cent of sites surveyed in the upper Goulburn area. New populations of several threatened plants were located, including a Leek Orchid on the Longwood plains and Pale Hickory Wattle in the Howqua Valley (this is the second of only two populations).
- The Goulburn Broken Indigenous Seedbank at the University of Melbourne's Dookie Campus continues to be an essential resource: an increasing emphasis is being placed on the role of seed production areas as a long-term, secure, and reliable supply of seed, as well as a means of reducing pressure on the regeneration capacity of small remnant populations. The Seedbank is currently seeking a corporate sponsor to continue the sponsorship arrangement that it previously enjoyed with Kraft Foods.
- The seed production area at the Euroa Arboretum has expanded its services to threatened species conservation by management of a seed production area and propagation of individuals of Lima Stringybark, Slender Darling Pea, Euroa Guinea Flower and Narrow Goodenia.
- Targeted community education and participation projects included efforts around the following species and projects: Carpet Python, Mount Piper Biolink, Superb Parrot, Grey-crowned Babbler, Golden Sun Moth, Bush Stone-curlew, Dookie Biolinks, Barmah Biodiversity Action Planning and Beyond the Fauna Bridges.
- The Regent Honeyeater project continues to be a highly successful community-based project, restoring remnant box-ironbark habitat for endangered species living in the district. Project Coordinator, Ray Thomas, was awarded the Australian Geographic Society Conservationist of the Year for 2009 for his work on the project. See case study at www.gbcma.vic.gov.au *Ray Thomas National Geographic award 2009*.

Actions 2007-08, 2008-09 and 2009-10

Action		From funds received through Corporate Plan				
		Achieved ⁱ		Target	% achieved	
		2007-08	2008-09	2009-10		
Stock grazing management action						
Fence terrestrial remnant vegetation	ha	710	451	1,276	1,276	100
Fence wetland remnant	ha	1,794	609	8	18	44
Fence stream/river remnant	ha	2,536	2,563	63	81	78
Binding management agreement (licence, Section 173, covenant) ⁱⁱ	ha	373	363	906	915	99
Grazing regime change ⁱⁱⁱ	ha			233	154	151
Habitat loss management						
Revegetation – plant natives ^{iv}	ha	460	945	1,403	1,708	82

i Achievements include those from complementary investment areas (SIR salinity, Riparian and instream habitat and channel form and Dryland salinity).

ii The target of 915 hectares includes 850 hectares for Trust for Nature's covenants. Trust for Nature delivered all of the 906 hectares achieved.

iii Output of the Fire Recovery Program (this output is not shown in the detailed outputs table on page 124; in 2008-09 it was an output of the Drought Employment Program and the figure was not shown in the 2008-09 Annual Report).

iv Natural regeneration 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.

Collaborations and communities

- The Local Government Biodiversity Reference Group convened by Moira Shire Council continued to be a highly effective collaborative forum for local government environment officers and other agency partners. Funding was secured for the Backbone to Biolinks project in July 2010, which will build community capacity to create biolinks across the landscape and help local governments incorporate biodiversity priorities into their environment strategies over the next 18 months. The Reference Group was also funded by DPI's Future Farming Initiative to deliver Weedstop Training (accredited training on weed identification and control) to 179 council staff.
- The Goulburn Broken CMA is working closely with Parks Victoria, DSE, DPI, Local Government and Landcare to help the natural, social and economic environments in the upper Catchment impacted by fire.
- The Goulburn Broken CMA continued to support the establishment of NatureWeb (www.natureweb.org.au), an interactive website that allows open exchange of ideas and information on biodiversity management.
- The long-standing and popular Box-Ironbark Ecology Course continued to be supported.

Planning and responding (includes research and development)

- The updated Biodiversity Strategy for the Goulburn Broken was developed. A consultation draft was released in May 2010, and the final prepared for release in July 2010.
- Goulburn Broken CMA submitted responses to Australia's Native Vegetation Framework Consultation Draft, Victoria's Biodiversity Strategy Consultation Draft, the Murrindindi Shire Environment Strategy, the Parliament of Victoria Environment and Natural Resources Committee Inquiry into Soil Sequestration in Victoria.
- The Goulburn Broken CMA commenced work with DSE to develop statewide vegetation works standards.

- The Goulburn Broken CMA supported proclamation of a network of national parks along the Murray by the Minister for Environment and Climate Change, Gavin Jennings MLC, in June 2010. This follows Victorian Environmental Assessment Council's recommendations from the River Red Gum Forests Investigation.
- Permanent monitoring sites were established by Australia National University as part of the collaborative Threatened Grassy Woodland project between Goulburn Broken CMA, North East CMA and Murray CMA (New South Wales). These sites contribute to broader research of grassy woodlands from Queensland to Victoria.
- Goulburn Broken CMA is a partner in the Landscape Logic project, a multi-agency Commonwealth Environment Research Facilities research hub. One major sub-project analysed patterns and macro-drivers of change in woody vegetation extent since the 1940s. Preliminary results indicate that there has been a reverse in the decline of woody vegetation loss, owing far more to natural regeneration around remnant trees and reserves than to revegetation. Results from property-scale mapping also challenge previous work on the Goulburn Broken CMA's 'times 2' assumption. The new data suggest the assumption overestimates gains in extent of native vegetation through privately funded action. (See www.landscapelogic.org.au).
- Goulburn Broken CMA continued to collaborate with the Applied Environmental Decision Analysis project, a Commonwealth Environment Research Facilities hub to improve decision support systems.
- Goulburn Broken CMA supported research by Charles Sturt University into the biodiversity value of vegetation thickening through natural regeneration. Results are expected later in 2010.
- Models of landscape permeability for fauna species were developed by Monash University and will be incorporated into future landscape planning.

Conservation management network (CMN) activities

- Fox control was undertaken across more than 60,000 hectares of private and public land in the Whroo Goldfields and Broken Boosey CMN areas.
- Threatened species recovery activities included:
 - an article in the Whroo Goldfields CMN newsletter, which led to the reporting of two new populations of the Golden Sun Moth, which is listed in the Environment Protection and Biodiversity Conservation Act
 - surveying of more than 750 nest boxes in the Broken Boosey and Whroo Goldfields CMN areas, resulting in the discovery of an endangered Brush-tailed Phascogale population in the Heathcote-Graytown National Park
 - collection of seed and propagation and planting of 500 seedlings for three threatened flora species in the Broken Boosey State Park and surrounding private land.
- Through the Broken Boosey CMN, the fourth Broken Boosey CMN calendar was produced, the Biodiversity Celebration Day was held in Tungamah attracting 70 landholders, and 35 hectares of high priority sites were direct seeded.
- Twelve Biodiversity Education Days were held at primary and secondary schools across the Broken Boosey CMN area. CMN Implementation group member Lanie Pearce was awarded the 2010 SIR Landcare Education Award for her hard work developing and delivering this program. See case study at www.gbcma.vic.gov.au *Landcare awards in Shepparton Irrigation Region*.

River health activities focused on aquatic threatened species

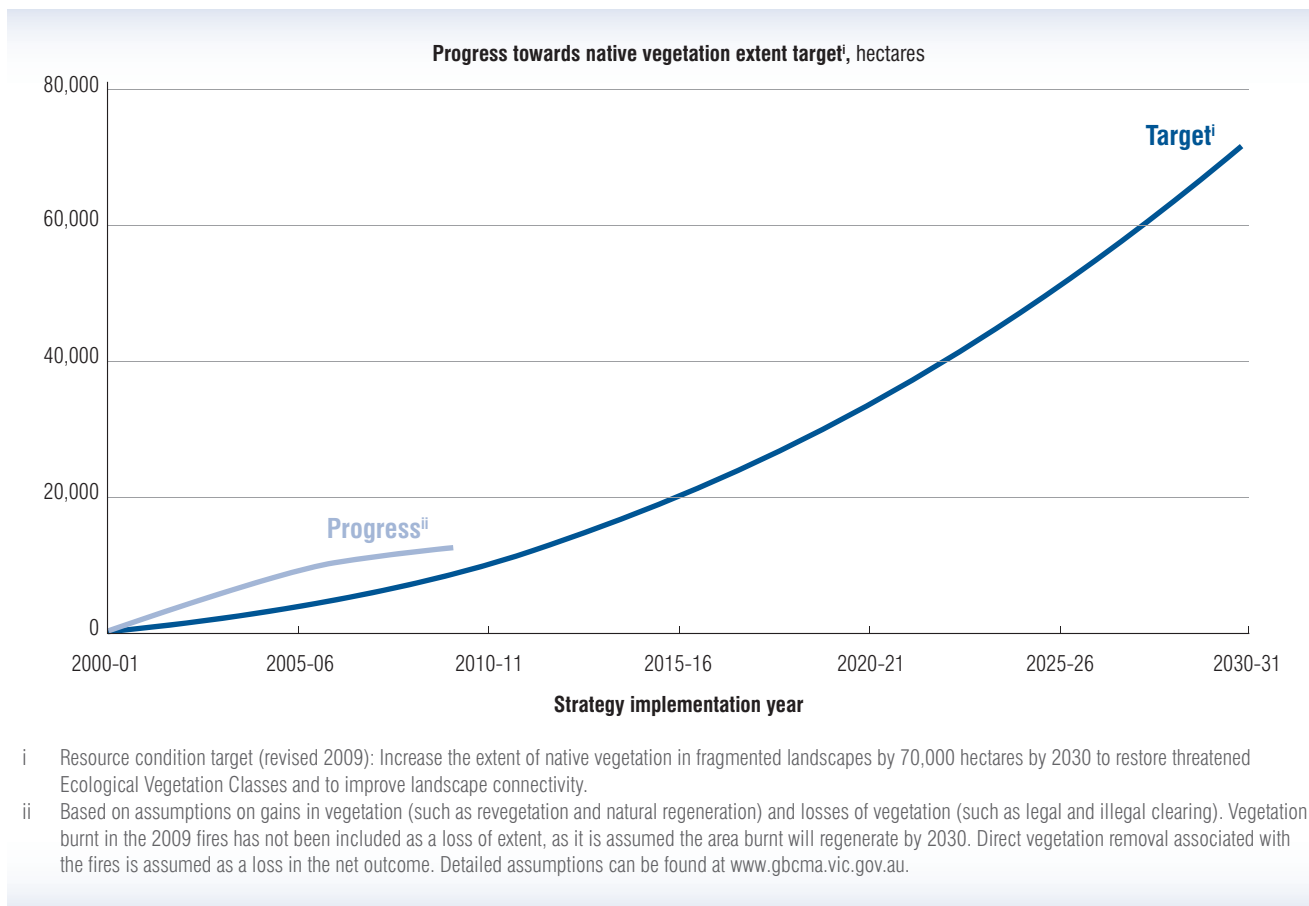
The Goulburn Broken CMA's River Health Program includes a strong emphasis on aquatic threatened species. See page 108 for details of 2009-10 performance.

Climate change activities that relate to biodiversity

- Goulburn Broken CMA continued to support the Goulburn Broken Greenhouse Alliance and the Local Government Biodiversity Reference Group. Both groups have also been funded through the Victorian Local Sustainability Accord to implement climate change projects.
- Investigations into opportunities and challenges associated with carbon markets are continuing with partners and Carbon Brokers. The Australian Government delayed the introduction of the carbon pollution reduction scheme and the impacts of this on carbon market activity are unclear. Reports suggesting the majority of the Australian public still want action on climate change is likely to ensure voluntary carbon offset markets continue.
- The Goulburn Broken Greenhouse Alliance received Victorian Government funding for climate change projects and has appointed a Regional Coordinator, with support from Goulburn Broken CMA
- The Goulburn Broken CMA is represented on the Hume Region Climate Change Coordinating Committee and is involved with the Hume Community Climate Project.
- An internal climate change communication strategy has been developed to aid communication of the Goulburn Broken CMA's climate change policy and its role in the climate change response.
- Goulburn Broken CMA supported Monash University's 'The 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. Initial findings of this five-year project are expected at the end of 2010.

Long-term strategy implementation progress

- The Biodiversity Strategy for the Goulburn Broken Catchment 2010-2015 was developed following reviews of the Strategic Plan for Integrating Native Biodiversity 2004-07 and the Native Vegetation Management Strategy 2000.
- Onground progress has been made through a range of mechanisms, including market-based approaches, stewardship payments, Drought Employment Program, conservation covenants, and grants and incentives for revegetation and remnant protection.
- Key assumptions for reporting on native vegetation targets have been reviewed and updated. New assumptions around impacts of fire and post-fire clearing on native vegetation extent and quality have been made, with further work required to improve certainty. Based on the revised targets and assumptions, we are:
 - on target for native vegetation extent, however there has been a drop in progress due to post-fire clearing of native vegetation; the projected trajectory also assumes a significant increase in present achievement rates
 - well below the vegetation quality target, which is due to decline from a range of threats, including more than a decade of dry conditions; quantifying changes in vegetation quality remains especially difficult.
- The Goulburn Broken CMA is exploring a revised threatened species target with DSE.
- Progress related to implementing aquatic (including wetland) biodiversity approaches is described in 'Investment area 2a – Environmental flows and water supply' and 'Investment area 2b – Riparian and instream habitat and channel form'.



Catchment condition

- It is difficult to rate the condition of the Catchment in terms of biodiversity because of the uncertainty of measurement. Biodiversity is a new, very broad and complex field of endeavour: scientists, governments and the community are in the early stages of defining the condition of biodiversity that is desired and achievable.
- Against a reference point of pre-European settlement, the Catchment condition is 'poor'.
 - Catchment condition appears to be similar to what it was in 1990, and we are making some progress towards Catchment targets, however, there is a still long way to go
 - the rating of poor is unlikely to change in the medium term at the Catchment scale given the amount of landscape modification since European settlement
 - pre-European condition may not be useful as a reference point; if it is deemed useful or 'all we have' then we may need to acknowledge that it will only ever be possible to work towards a rating of 'satisfactory', rather than 'excellent' or 'good'; other more complex reference points may be more useful but resources spent establishing and monitoring progress might be better used elsewhere.
 - long-term threats will persist regardless of our intervention activities: extinction-debt may occur where species become threatened or extinct due to past broad-scale vegetation clearance; this threat requires sustained action to redress as many threatened species continue to decline and climate change adds another layer of threat and complexity; a wave of species extinctions is forecast under runaway climate change scenarios
 - long-term impacts of regular, intense and broad-scale wildfire are unknown
 - the 2006-07 and 2009 fires burnt over one third of the Catchment's woody vegetation; recovery trajectories for individual species and vegetation types are not yet known.
- Despite the issues outlined above, improvements in condition have occurred and include:
 - reduced legal and illegal vegetation clearance rates (although post-Black Saturday bushfire clearing changes this scenario)
 - important sites have been covenanted or purchased (Trust for Nature, National Reserve System)
 - increased natural regeneration of woodlands through land use change
 - considerable revegetation, remnant protection and stewardship via market-based approaches (continuation of Bush Returns, Green Graze, BushTender and the Woodlands Project)
 - large areas have been protected through incorporation into the National Reserve System, particularly Box-Ironbark Woodlands and River Red Gum Forests
 - environmental water allocations have been delivered to important wetlands and floodplains, although more is needed and this will continue to be a priority
 - institutional relationships and mechanisms have strengthened, particularly with regard to 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?

- The launch of the Final Biodiversity Strategy for the Goulburn Broken Catchment, as a part of the International Year of Biodiversity celebration.
- Implementation of the updated Biodiversity Strategy for the Goulburn Broken Catchment 2010-2015 will begin.
- The Goulburn Broken CMA will continue to align strategic directions with *Securing Our Natural Future*, a white paper on land and biodiversity at a time of climate change, and the Victorian Biodiversity Strategy 2010-2015 Consultation Draft.
- We will continue to ensure that biodiversity remains at the forefront of changes in strategies, policies and delivery approaches.
- Projects funded under the Australian Government's Caring for Our Country program such as the collaborative Woodlands Project will continue to be implemented.
- There will be a general focus on building ecosystem resilience and delivering targeted landscape-scale projects.
- There is a need to assess whether achievement of current targets for biodiversity condition would be sufficient in maintaining functioning and resilient ecosystems.
- The Goulburn Broken CMA Biodiversity and Dryland Landscape teams will be merged into the Land and Biodiversity Unit, which will help to legitimise biodiversity conservation across a range of land uses.
- There will be increasing collaboration with public land managers and Indigenous groups.
- Fire recovery and improving our understanding of fire impacts will remain a priority over the next few years.
- Iconic River Red Gum trees will be protected and the health of floodplains and woodlands will be improved with the establishment of the Lower Goulburn and Barmah National Parks.

Climate change and biodiversity

- Responses to bio-sequestration plantings in the Catchment will be developed by investigating the development of standards.
- A response will be developed to the opportunities and challenges associated with the impending Victorian Climate Change White Paper.

Investment area 4 – Flood protection

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	2010	Certainty of rating	Trend
2009-10 performance	Outputs (against targets set as a result of funds received) Corporate Plan KPIs related to flood protection (see page 57)	n.a.	n.a.	On target	High	n.a.
Long-term strategy implementation progress	Strategy tasks implemented (scheduled to be completed between 2002 and 2010)	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 91), including an explanation of the decision focus and ratings.

ⁱⁱ Ratings for 1990 have been determined using our understanding in 2010 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, 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, 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.

Government investment, \$000

2007-08	2008-09	2009-10	2010-11 ⁱ	Trend
400	440	614	353	●

ⁱ Forecast based on funding advice at August 2010.

Major strategic references

- Goulburn Broken Regional Floodplain Management Strategy 2002-12
- Planning and Environment Act 1987 (Section 55)

Implementation of the Regional Floodplain Management Strategy is opportunistic and is subject to funding under Australian and Victorian Government incentives. A review of the Strategy's nine programs is available at www.gbcma.vic.gov.au.

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 catchments covering just a few square kilometres, with such problems being dampened over large 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 flooding in urban centres where climate change is likely to have a profound impact (urban centres are currently estimated to account for half the flood-damage bill compared with 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.

2009-10 performance

Of the many tasks undertaken (and summarised in the table below), highlights were:

- planning scheme amendments prepared for Mansfield Shire Council
- finalisation of the Ministerially approved flood mitigation plan for Benalla
- approval of further funding for flood studies of the Nagambie and Flowerdale areas
- 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.

Action ⁱ	From funds received through Goulburn Broken CMA's Corporate Plan		
	Achieved	Performance ⁱ or progress in 2009-10	
Integrating knowledge into planning			
Subdivisions	no.	92	Responded within statutory time frames to applications to the eight municipalities in the Goulburn Broken CMA.
Dwellings	no.	251	
Retail, shop or office buildings	no.	22	98.2% determined within prescribed time limits.
Planning scheme amendments	no.	15	
Whole farm plans	no.	85	
Flood information enquiry	no.	149	
Planning other	no.	193	
Flood planning amendments gazetted	no.	2	90% completed. Two planning scheme flood amendments for Mitchell and Campaspe planning schemes were gazetted; new mapping, exemptions and performance based criteria documents are included. 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	8	
Floodplain implementation	no.	1	Benalla Rural City Council Scheme was finalised in early 2010. Moirra 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 reassessing mitigation works at Tatura.
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, Kilmore-Broadford region.
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. Barmah Township preliminary detailed design tenders were received in May 2010 by Moira Shire Council. Preliminary detailed design has been prepared for Seymour Flood Mitigation Levee Plan and community consultation input commenced in May 2010. Violet Town Floodplain Management Plan commenced in February 2010.
Regional flood studies and management plans	no.	3	Barmah Wetland flood model finalised and handed over to the Murray-Darling Basin Authority for further investigations. Regional Murray Flood Study: final reviews completed and expect final report soon. Goulburn River – Eildon to Bunbartha: flood modelling reviewed and further investigation is required.
Creating awareness			
Flood education and awareness program	no.	1	Statewide flood web portal is nearing completion.

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. Since 2002, the prolonged dry period has made flood damage negligible. Significant flooding of Barmah-Millewa Wetlands during 2005-06 was an exception.
- 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 be conducted.
- 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.
- Implementation of flood warning and emergency management arrangements with partners, particularly Victorian State Emergency Service and councils, will be supported.
- Implementation of capital works programs will be supported.

Investment area 5 – Pest plants and pest 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	2010	Certainty of rating	1990 ⁱⁱ	Certainty of rating	2010	Certainty of rating	
2009-10 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 2010)	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 91), including an explanation of the decision focus and ratings.

ⁱⁱ Ratings for 1990 have been determined using our understanding in 2010 of what the situation was like 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 pest plants and animals on agriculture and the environment is 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.

Private land managers target a wide range of pest species and typically focus on those that are well established.

DPI pest plant and animal activities were removed from the Goulburn Broken CMAs investment process from 2009-10, however DPI and the Goulburn Broken CMA continue to work together 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 pest animals such as wild dogs and rabbits.

In recent years DPI has increased emphasis on new, emerging and highly threatening weed species. DPI believes that preventing establishment of new species is by far the most cost effective use of government weed management resources.

The Goulburn Broken CMA continues to support the management of pest plants and animals through existing investment areas such as River health and Biodiversity.

Government investment, \$000

2007-08	2008-09	2009-10 ⁱ	Trend
1,140	1,100	-	●

ⁱ DPI pest plant and animal activities were removed from the Goulburn Broken CMA's investment process from 2009-10.

Major strategic references

- Goulburn Broken Weed Action Plan 2001-05
- Goulburn Broken Pest Animal Plan (in preparation)
- Goulburn Broken Regional River Health Strategy 2005-15
- Catchment and Land Protection Act 1994
- Invasive Plants and Animals Policy Framework (in preparation)

Climate change and pest 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 consultation draft of the Goulburn Broken Invasive Plants and Animals Strategy 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.

2009-10 performance

Despite the ongoing impact of the Black Saturday bushfires, pest management projects across the Catchment achieved excellent results during 2009-10. 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 check whether infestations had spread.

Works and extension

- Blackberry and Gorse compliance programs involving over 300 properties were conducted in the Glenaroua, Longwood East, Howqua, Strathbogie, Nanneella and Swanpool areas. The Goulburn Broken Satellite Gorse Control Program continued, involving over 100 infestations. The program targets all Gorse infestations in the region north of the Kilmore-Broadford concentration. During these programs, 180 compliance notices were issued to land managers under the Catchment and Land Protection Act. More than 90 per cent of these notices were complied with.
- Ian Sauer, National Gorse Taskforce Chairman, launched the Gorse National Best Practice Manual on Annemaree Docking's property at Willowmavin and Goulburn Broken community stalwart, Margaret Hatton, was recognised for her efforts as an outstanding Gorse management volunteer.
- The Rural Extension Program delivered extension services to 225 landholders in the Strathbogie and Nanneella areas, targeting blackberry.

- The Rabbit Compliance Program continued in the Highlands area, involving 65 new properties.
- Blackberry works were initiated by DPI on two properties using the compliance entry process, ensuring that successful works programs on adjoining properties were not compromised.
- DPI treated all known infestations (40 sites) of the State Prohibited weeds Camel Thorn, Giant Knotweed and Ivy-leaf Sida on private land and public land. The long term objective of this program is eradication from the region.
- Treatment plans were implemented for all known sites of the regionally prohibited weeds Artichoke Thistle, Wild Garlic and Serrated Tussock.
- A willow control program has been established on the Broken Creek to safeguard the ecological character of Barmah Wetland.
- A pest animal and plant control program has been established within the Barmah Wetland and the Yielma property 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.
- A major integrated weed control program was initiated in the upper Goulburn catchment in response to the 2009 wildfires. This program will continue.
- Goulburn Broken CMA is represented by staff in developing the Murray-Darling Basin Authority's Alien Fish Plan.
- Blackberry is being controlled in partnership with other government agencies as a component of the Holland's Creek demonstration reach project.
- A total of 668 hectares of exotic such as willows (mainly), blackberry and ash trees were treated along riparian land of the Goulburn River. This was part of the Goulburn Large Scale River Restoration Project.

Actions 2007-08, 2008-09 and 2009-10

Action		From funds received through Corporate Plan				
		Achieved		Target ⁱ	% achieved	
		2007-08	2008-09	2009-10		
Weed invasion						
Weeds – aquatic weeds controlled/eradicated	km	53	26	27	163	17
Targeted infestations of weeds in high priority areas covered by control programs ⁱⁱ	ha	11,138	36,964	34,400	35,240	109
Pest animals						
Area of high priority rabbit infested land that are covered by control programs ⁱⁱ	ha	200	1,530	5,700	10,380	55
Area of high priority fox infested land covered by control programs ⁱⁱⁱ	ha	45,570	0	108,250	85,000	127

i Pest Plant and Animal targets 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 every five years (the last time they were included was in 2004-05).

ii This includes 'Weeds - woody weed management'. Outputs from 2007-08 to 2008-09 include DPI, river health and Drought Employment Program works. Outputs in 2009-10 include DPI, river health investment area and Fire Recovery Program works. DPI works are completed outside of the Corporate Plan (from 2009-10) and include a target and achievement of 34,400 hectares for weeds in high priority areas, and a target and achievement of 5,700 hectares for high priority rabbit control. 2,750 ha of weeds were targeted by the Fire Recovery Program.

iii Fox control outputs were achieved through the Broken Boosey and Whroo Goldfields Conservation Management Networks.

Collaborations and communities

- Two new community blackberry programs were completed in the Strathbogie and Nanneella areas as part of the Rural Extension Program.
- There are now 178 registered and trained weed spotters scouring the Goulburn Broken Catchment for high threat weeds as a result of the DPI Weed Alert program.
- Field staff from six municipalities across the Catchment completed weed hygiene training programs to ensure appropriate weed management protocols were understood and incorporated into their day-to-day operations.
- See also case study at www.gbcma.vic.gov.au: *Tungamah fox hunters awarded*.

Planning and responding (including research and development)

- The surveillance program for identifying new State and regionally prohibited weed infestations continued.
- Development of the Goulburn Broken Invasive Plants and Animals Strategy is well advanced, with completion expected early in 2010-11.

Long-term strategy implementation progress

- Goals to help stakeholders manage pest plants and pest animals were identified in strategic documents almost a decade ago. These goals were not clear or specific, which reflected the level of understanding around monitoring and recording of pest management outcomes then. While progress is probably less than what was expected when the documents were written, strategic approaches being developed (see 'What's next?') will provide stakeholders with a much more solid framework for evaluating and understanding strategy implementation progress.
- While funding provided for pest management in recent years has not enabled implementation of the entire strategy, all activities that were funded have been completed.
- Weeds in some areas have increased in area while others have been the focus of active management.

Catchment condition

- Significant bushfires in recent years, including the catastrophic February 2009 Black Saturday bushfires, have provided opportunities for improved weed and pest animal management. Improved access to infestations, coupled with targeted bushfire recovery funding, is resulting in many effective control programs.
- Terrestrial and aquatic environments remain vulnerable to new and emerging weeds.
- We have a better understanding of what and how to target now, although our capacity to deliver changes has declined in some areas.
- Our very successful local community-scale approach developed via the Rural Extension Program in the past few years provides a model for other catchments.
- Some significant weeds require active management to contain their spread and impact on environmental, social and economic value of waterways.

What's next?

- The Goulburn Broken Invasive Plants and Animals Strategy is well advanced, with completion expected early in 2010-11. The Strategy will be a sub-strategy of the Regional Catchment Strategy and will advocate a new approach for managing invasive plants and animals across the Goulburn Broken Catchment. The Strategy will support the new State Invasive Plants and Animals Policy Framework (launched in late 2009).
- Land managers importing fodder and grain during the drought and post-fire will need to remain vigilant with respect to weed hygiene, given the potential to introduce new weed species.
- The surveillance program for identifying all State and regionally prohibited weed sites will continue and all properties adjoining known infestations will be inspected.

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 = riparian)	Fence terrestrial remnant vegetation (ha) ⁱⁱ	371	119	32
	Fence wetland remnant (ha)	8	8	100
	Fence stream/river remnant (ha)	37	3	8
	Off-stream watering (no.)	24	0	0
	Binding Management Agreement (license, Section 173, covenant) (ha) ⁱⁱⁱ	311	260	84
Induced Threat				
Saline water and high watertables				
Surface water ^{iv}	Landform/lasergrading (ha)	5,000	13,745	275
	Drain – primary (km) ^v	5	6	120
	Drain – community (km)	6	4	67
	Weir – replace (no.)			
	Farm reuse system (no.) ^{vi}	47	76	162
	Drain – additional water diverted from regional drains (ML) ^{vii}			
	Irrigation systems – improved (ha) ^{viii}	5,400	14,217	263
	Pasture – plant (ha)			
Sub-surface water	New groundwater pumps – public (no.)			
	New groundwater pumps – private (new and upgrade no.)	6	9	150
	Volume water pumped (ML)	600	1,827	305
	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.) ^{ix}	1	0	0
In-stream and near-stream erosion	Bed and bank protection actions (km)	8	1	8
	In-stream & tributary erosion controlled (km)	2	0	0
Soil erosion, acidity, sodicity & structural decline	Application of lime (ha)			
	Minimum tillage (ha)			
Changed flow pattern	Water allocated - eg wetlands (ML) ^x	500	37,471	7,494
Weed invasion ^{xi}	Weeds – woody weed management (ha)			
	Weeds – aquatic weeds controlled/eradicated (km) ^{xii}	142	21	15
	Targeted infestations of weeds in high priority areas covered by control programs (ha) ^{xiii}	6,660	7,253	109
Pest animals ^{xiv}	Area of high priority rabbit infested land that are covered by control programs (ha) ^{xv}	80	0	0
	Area of high priority fox infested land covered by control programs (ha) ^{xvi}			
Impact				
Habitat loss - terrestrial	Revegetation - plant natives within or next to remnants (ha) ^{xvii}	345	91	27
	Revegetation - plant natives away from remnants (ha)			
Habitat loss – in-stream	Fish release (no.)			
	Vertical slot fishway (no.)			
	Rock ramp fishway (no.) ^{xviii}			
	Fish barrier removal (no.)			
	Establish SEAR (Significantly Enhanced Aquatic Refugia) (no.)	3	0	0
Habitat loss – wetlands	Reinstate flood regime (ML)			
	Construct new wetland (ha)			
Habitat loss – Threatened species	Threatened Species Recovery Plan and Action Statements (no. projects)	4	4	100
Planning	Whole farm plans (no.) ^{xix}	160	212	133

i Targets are determined by considering level of government funds received (as listed in Corporate Plan) and do not include contributions from other fund sources. Refer to separate Long-term scorecard for analysis of progress towards long-term targets.

ii Includes 360 hectares of remnant protection in Bushire Recovery Program in 2009-10.

iii The target in 2009-10 of 915 hectares includes 850 hectares for Trust for Nature's covenants. Trust for Nature delivered all of the 906 hectares achieved.

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.

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.

ix Stormwater management projects are undertaken on a one-to-one funding basis with local government. Project included installing a gross pollutant trap at Seven Creeks Euroa.

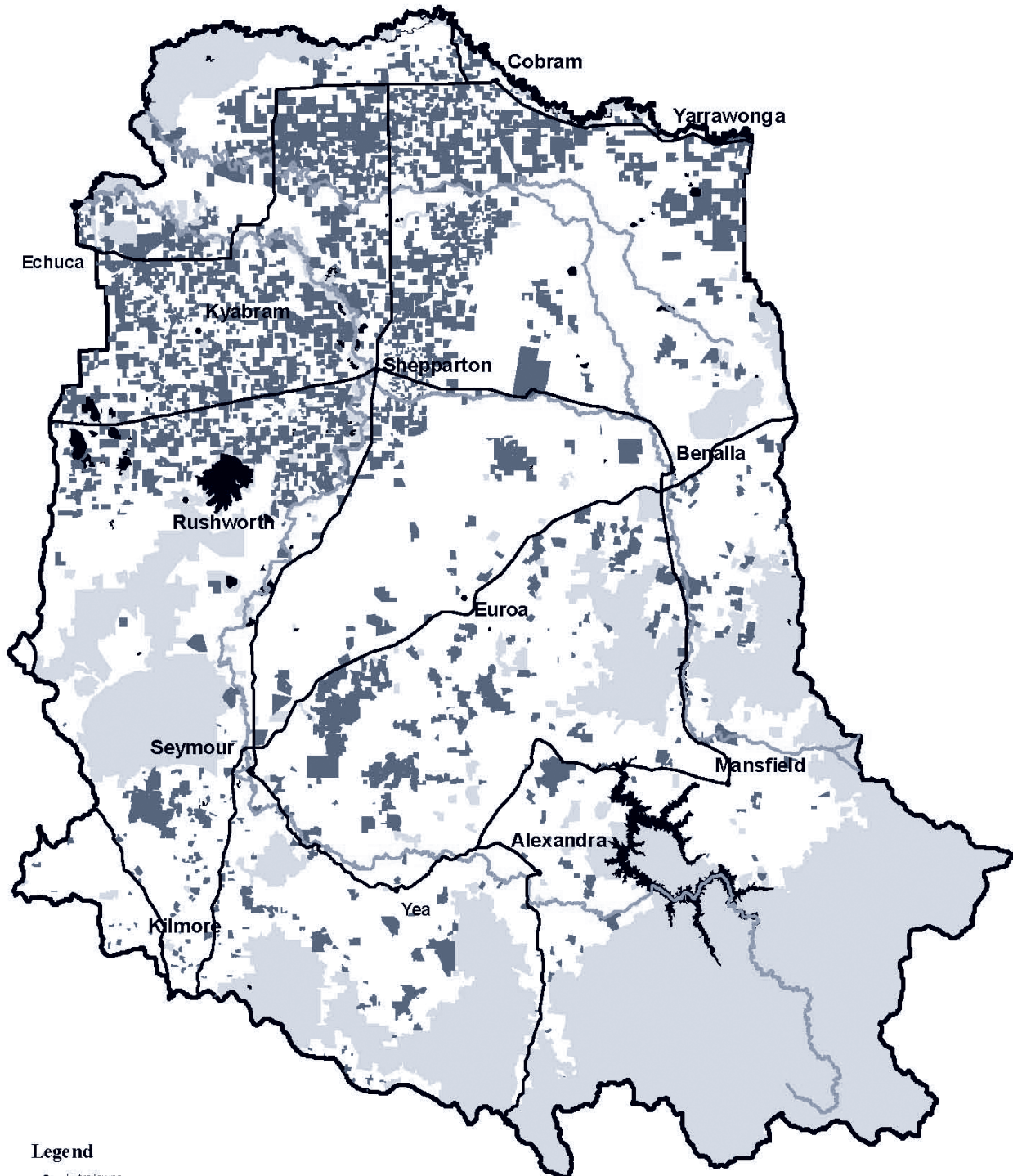
x The threats posed by water quality problems required a greater volume of environmental water to manage low dissolved oxygen in the Broken Creek. Delivery to wetlands is funded by environmental water provisions under the Living Murray program and the Victorian River Murray Flora and Fauna Bulk entitlement.

Broken Goulburn Region Implementation Committee			2009-10			Total achieved					
Target ⁱ	Achieved	% achieved	Target ⁱ	Achieved	% achieved	2008-09	2007-08	2006-07	2005-06	2004-05	2003-04
905	1,157	128	1,276	1,276	100	451	710	769	519	771	512
10	0	0	18	8	44	609	1,794	22	6	24	13
44	60	138	81	63	78	2,563	2,536	725	115	91	218
16	48	300	40	48	120	122	95	73	89	74	86
604	646	107	915	906	99	363	373	1,625	758	797	(no.) 231
750	425	57	5,750	14,170	246	20,476	8,525	4,490	7,700	7,700	9,000
			5	6	120	6	9	6	11	8	12
			6	4	67	5	0	0	6	0	20
			47	76	162	66	48	56	70	65	78
						0	200	75	235	675	160
			5,400	14,217	263	23,059	8,967	6,060	8,580	13,232	10,325
100	152	152	100	152	152	75	391	718	1,543	544	330
						1	1	0	3	3	3
			6	9	150	11	24	19	11	10	19
			600	1,827	305	1,794	3,237	3,462	1,800	1,071	tba
								0		0	
								31	97	129	156
1	1	100	2	1	50	1	1	3	2	2	1
2	5	238	10	5	55	8	13	12	16	41	11
51	207	406	53	207	391	102	543	19	502	916	83
500	0	0	1,000	37,471	3,747	840			510,000	266	
								0	75	70	79
21	6	29	163	27	17	26	53	39	33	21	0
28,580	31,272	109	35,240	38,525	109	36,964	11,138	9,637	69,437	281,200	259,920
10,300	5,700	55	10,380	5,700	55	1,530	200	0	10,150	56,800	35,700
85,000	108,250	127	85,000	108,250	127	0	45,570	94,410	108,856	53,000	54,200
1,363	1,311	96	1,708	1,403	82	945	460	758	1,177	981	459
									117	74	248
									0	0	
									1	3	1
0	1		0	1	0					5	
						1	8	6	4	0	
8	16	204	11	16	155	59	30	2	1.3	17	10
										0	
									0	3	
10	8	80	14	12	86	29	37	34	13	15	6
65	47	72	225	259	115	341	369	232	185	262	363

- xi Pest Plant and Animal targets 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 every five years (the last time they were included was in 2004-05).
- xii 2009-10 target for aquatic weed control was overly optimistic (it was far greater than in previous years).
- xiii This includes 'Weeds - woody weed management'. Outputs include DPI, River health investment area and Fire Recovery Program works only. DPI works are completed outside of the Corporate Plan (from 2009-10) and include target and achievement of 34,400 hectares for weeds in high priority areas and a target and achievement of 5,700 hectares for high priority rabbit control. 2,750 ha of weeds were targeted by the Fire Recovery Program.
- xiv Fox control outputs were achieved through the Broken Boosey and Whroo Goldfields Conservation Management Networks.
- xv Natural regeneration 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 ha to the grazing regime change works output in 2006-07, which is not included in the revegetation figures.
- xvi Target was 0 because new funding arrived during the year (after Corporate Plan was finalised)
- xvii Figures for Broken Goulburn Implementation Committee are for Level 2, 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 2010



Legend

- Extra Towns
- Towns
- Roads
- Rivers
- Whole farm plan properties
- ▭ Goulburn Broken Catchment boundary
- Lakes
- Public land

0 5 10 20 30 40
Kilometres



Map produced by J Nunan, IEAOB, BV, DPI Benalla
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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, recolonize, evolve and adapt naturally.

End-of-valley targets have been proposed for major rivers contributing salt to the River Murray under the (Murray-Darling) Basin Salinity Management Strategy. The purpose of these targets is to maintain salinity levels at the benchmark site, Morgan in South Australia, at or under 800 EC for 95 per cent of the time. These enable within-valley targets to be set. The proposed end-of-valley targets are being investigated to align them with expectations and obligations of different parties at regional, State and Federal levels.

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.

Foodbowl Modernisation plan was a proposal put to the State Government of Victoria by a consortium of community leaders in the Goulburn Murray Irrigation Area 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 Wholefarm Plan is a plan revised to take 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 aging infrastructure.

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
CLaN	Catchment Landcare Network
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
IC	Implementation Committee
IT	Information Technology
km	kilometre
KPI	Key Performance Indicator
ML	Megalitre
MLC	Member of the Legislative Council
MoU	Memorandum of Understanding
no.	Number
NSW	New South Wales
NRCA	Natural Resources and Catchment Authority
NRM	Natural resource management
NVIRP	Northern Victoria Irrigation Renewal Project
OFIEP	On-Farm Irrigation Efficiency Program
SIR	Shepparton Irrigation Region
SIRIC	Shepparton Irrigation Region Implementation Committee
SIRCIS	Shepparton Irrigation Region Catchment Implementation Strategy

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Ken Sampson

1950-2009



Ken Sampson made a remarkable contribution to northern Victoria.

He worked in irrigated agriculture at Kerang, Swan Hill, Echuca and Shepparton. He also had a stint on the Indo-Australian Cattle Breeding Project in India.

As an employee of various Victorian Government agencies, Ken was instrumental in developing and implementing salinity and drainage programs. From 1994, Ken was Executive Officer of the Shepparton Irrigation Region Implementation Committee.

Ken was a strong believer in what the community could achieve together. He was a dedicated contributor to, and leader of, many organisations, including Apex, football clubs and environmental groups. He gave exceptional support to budding scientists.

Ken was posthumously awarded the prestigious Maclean-Iedema Award by Irrigation Australia Limited for his very significant contribution over an extended period to the irrigation industry.

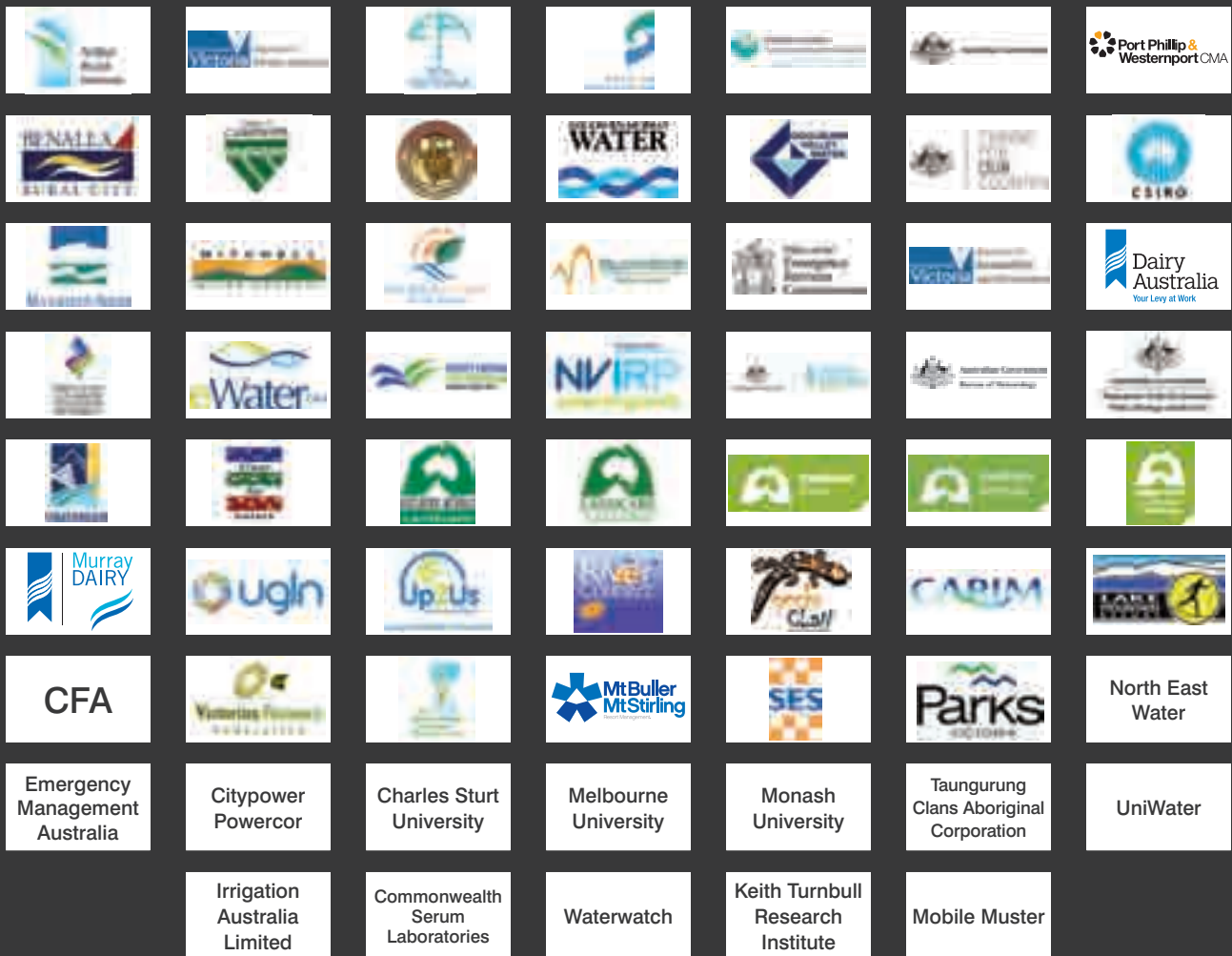
In memory of Ken, the Sampson Leadership Trust was launched to provide a perpetual annual scholarship of \$5,000 to aspiring young people working within the irrigation region. The Trust is funded solely by donations from people and organisations which Ken was associated with.

Ken's dry wit, dogged determination and freely given advice will be sorely missed at all levels within the community and within natural resource management organisations regionally and beyond.

Thank you Ken.

Staff list 2009-10

Apted, Rhiannon	Colliver, Max	Judd, Meegan	Norman, Chris	Tennant, Wayne
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Castles, Jim	Head, Jason	Moreno, Samantha	Sutherland, Gaye	Wilson, Corey
Collins, Stephen	Howard, Peter	Morgan, Travis	Tate, Collin	Wilson, Jenny



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.

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