

ANNUAL REPORT 2011-12

GOULBURN BROKEN CATCHMENT MANAGEMENT AUTHORITY



**GOULBURN
BROKEN**
CATCHMENT
MANAGEMENT
AUTHORITY

Ratings legend

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

For an explanation of how and why ratings are applied, see Appendix 1, 'Understanding progress and ratings' on page 78.

About this report

This report provides information on the Goulburn Broken Catchment Management Authority's (CMA) performance and finances, which can be assessed against its 2011-12 to 2015-16 Corporate Plan targets.

The Goulburn Broken CMA aims to provide information which is easily accessed, understood and relevant to readers. More detailed and scientific data can be accessed via the website www.gbcma.vic.gov.au.

A **separate summary** of this Annual Report is available from the website or from the Goulburn Broken CMA offices (see back cover).

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

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

Feedback on this report is encouraged to help improve future annual reports. Please provide comments by 31 December 2012 to guarantee consideration. A feedback form to help direct comments is available at the website.



**GOULBURN
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Front cover:

Main photo

- Flooding at Muckatah. Photo: Dean Judd, Goulburn Broken CMA

Inset photos (from top left, clockwise)

- Greenacres staff member spraying weeds at Black Engine. Photo: Keith Ward, Goulburn Broken CMA
- Robert Cook (Revegetation Victoria), Ron Campagnolo (Campagnolo Excavations and Cartage) and Max Colliver (Goulburn Broken CMA) undertaking flood recovery work (Gabion construction) on the upper Broken River. Photo: Geoff Brennan, Goulburn Broken CMA
- Beyond SoilCare Project farm tour at Whiteheads. Photo: Rhiannon Apted, Goulburn Broken CMA. See case study page 110.
- USA farmer Joel Salatin presenting in Shepparton. Photo: Charlie Sexton, Goulburn Broken CMA
- Daniel Clements (Department of Primary Industries) and Tom Morely (Department of Primary Industries) planting native vegetation to outcompete Cabomba in Lake Benalla. Photo: Trevor Hunt (Department of Primary Industries). See case study page 96.
- Re-snagging in the Goulburn River at Belstack. Photo: Jim Castles, Goulburn Broken CMA
- Shane Monk (Goulburn Broken CMA), Doug Froot (Botanist) and Janet Hagen (Landcare) inspecting a spring soak in the Strathbogie Ranges for the Taungurung weeds of national significance project. Photo: Gaye Sutherland, Goulburn Broken CMA. See case study page 21.
- Katunga farmer Bill Gread surveys a channel upgraded through the Farm Water Program. Photo: Fiona Lloyd, Goulburn Broken CMA. See case study page 84.

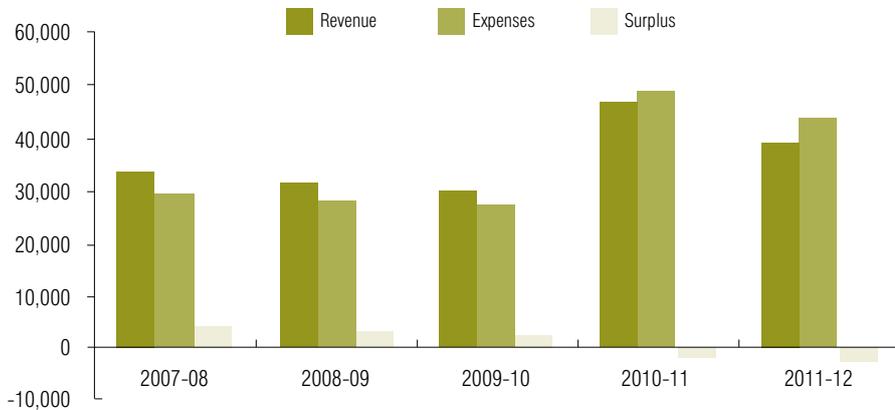
Overview

Operational highlights

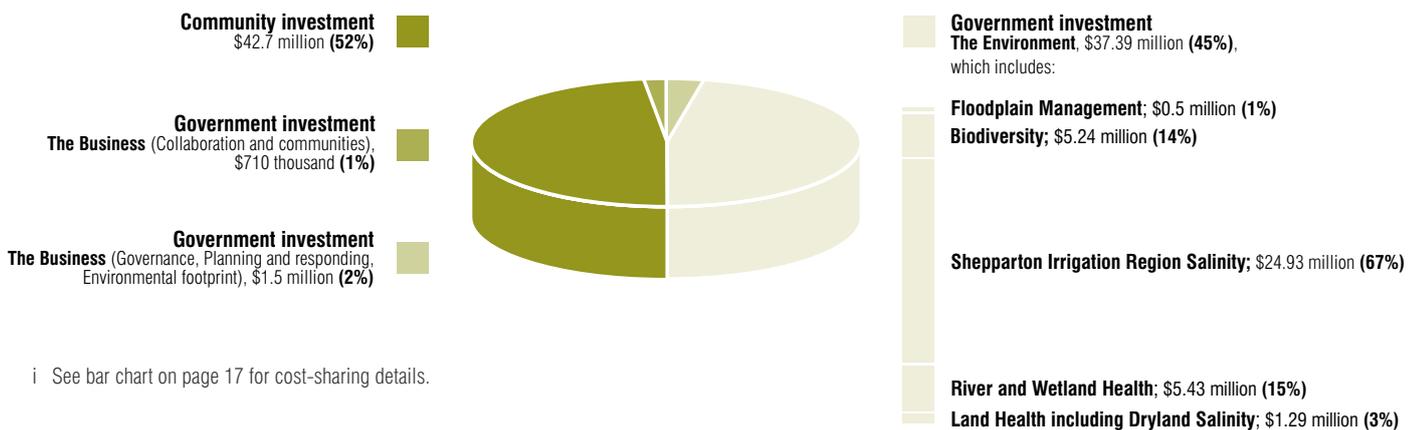
	Details page
Water-use efficiency, water savings, floods and environmental water	
<ul style="list-style-type: none"> • \$67 million of funding announced to generate 32 gigalitres of water savings for 237 on-farm irrigation infrastructure projectsⁱ, through Round 2 of the Farm Water Program. Almost 60 per cent of the 148 Round 1 projects have been completed, generating nine gigalitres of water savings. 	81
<ul style="list-style-type: none"> • In March 2012, the Broken-Boosey catchment saw the biggest floods in recorded history, causing significant damage to rural and residential areas. The Goulburn Broken CMA diverted significant resources to the Incident Control Centre playing an important role in flood intelligence and scenario planning. 	88
<ul style="list-style-type: none"> • A Flood Employment Program was implemented with the Cornella Local Area Plan Implementation Committee in the Cornella and Wanalta Creek catchments in response to the 2010 and 2011 floods. 	91
<ul style="list-style-type: none"> • 599 gigalitres of environmental water was delivered to maintain minimum flows in the lower Goulburn River and lower Broken Creek, provide a spring fresh in the lower Goulburn River, and to ensure success of waterbird breeding events in the Barmah-Millewa Forest. 	88
Works and incentives	
<ul style="list-style-type: none"> • 1015 incentives were provided to landholders for fencing, revegetation, whole farm plans, improving irrigation and installing reuse systems. 	118
<ul style="list-style-type: none"> • 888 hectares of remnant vegetation were protected. The Plains Woodland Tender and the Plains Wetland Tender made major contributions, 703 hectares and 136 hectares respectively. 	101
<ul style="list-style-type: none"> • 365 whole farm plans were completed across the Catchment; 93 per cent of the farmed land in the Shepparton Irrigation Region is now covered by whole farm plans. 	82
<ul style="list-style-type: none"> • 1,995 hectares of native vegetation were planted, up from 1,383 hectares in 2010-11. 	114
<ul style="list-style-type: none"> • Community-based natural resource management groups leveraged more than \$1.4 million of funding for onground works in the Catchment. 	20
Funding	

i Across the Goulburn Murray Irrigation District

Financial summary 2007-08 to 2011-12, \$000



Goulburn Broken investment shareⁱ



i See bar chart on page 17 for cost-sharing details.

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*. The Goulburn Broken CMA is accountable for its performance to the Minister for Environment and Climate Change, The Hon. Ryan Smith MP, and the Minister for Water, The Hon. Peter Walsh MP. The Goulburn Broken CMA is also empowered as an Authority under the *Water Act 1989*, being accountable for waterway management in its region to the Minister for Water, The Hon. Peter Walsh MP. (See page 75 for names of all persons who were responsible during 2011-12.)

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 Goulburn Broken 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 partner agency Goulburn-Murray Water and urban water and wastewater services are provided by another partner agency, Goulburn Valley Water.

See the 'Governance' section (page 35) for details.

Funding and staff

Goulburn Broken CMA's income for 2011-12 was \$39.6 million, derived from the Victorian and Australian governments, regional sources and other government entities. As at 30th June 2012, 62.9 (full-time-equivalent) staff were directly employed. See the 'Human resources' section (page 29) for details.

The Goulburn Broken CMA acknowledges the Traditional Owners of land in the Goulburn Broken Catchment and strongly respects the rich culture and intrinsic connection Traditional Owners have to the land.

Vision

Healthy, resilient and increasingly productive landscapes supporting vibrant communities.

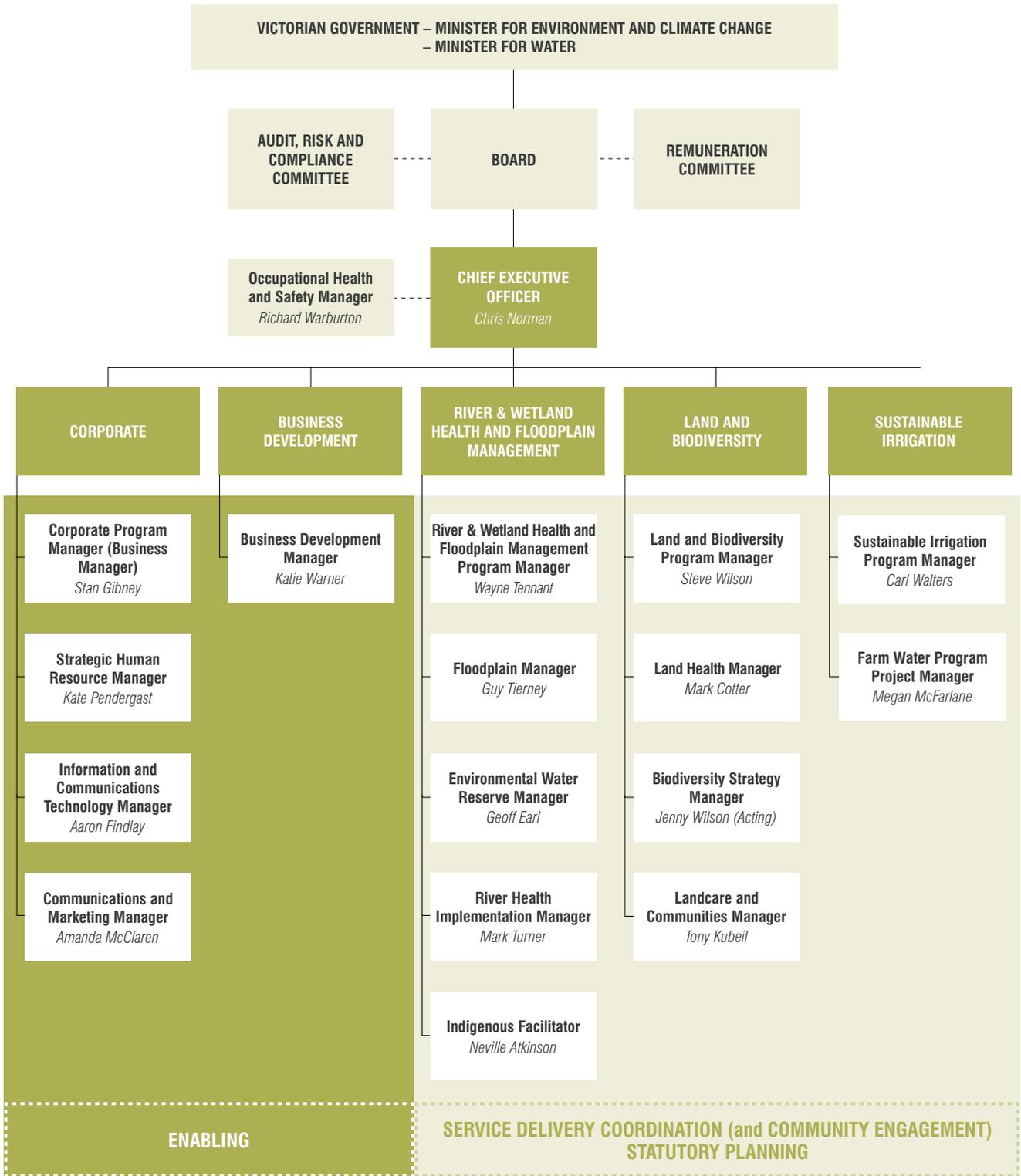
Purpose

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

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

People

The Goulburn Broken Catchment has a population of about 215,000, of which more than 90 per cent reside in regional towns and centres with the largest population centre being that of Shepparton/Mooroopna. Other significant settlements include Yarrawonga, Seymour and Benalla.

The annual population is growing by about 1.23 per cent – slightly higher than average for regional Victoria. Approximately 10 per cent of the population was born overseas and 6,000 identify as being Aboriginal or Torres Strait Islander, many who identify as Traditional Owners of this region. Migrants mainly from the British Isles took up landholdings in the 1800s. Since World War II, 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.

Landscape

The Catchment boasts a wide diversity of landscapes, including 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.

Water

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

The Catchment's two major river basins are the Goulburn and Broken, which yield 3,568 gigalitres, or 11 per cent, of the Murray-Darling Basin's water despite covering only two per cent of its area. A volume of 1,669 gigalitres is diverted for consumptive use.

Land use

The Catchment covers 2.4 million hectares, extending north from near the outskirts of Melbourne to the River Murray, the border with New South Wales. Most of the land is privately owned with 1.4 million hectares of dryland agriculture and 270,000 hectares of intensive irrigated agriculture. Public land covers 800,000 hectares including 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.

The primary industries are dairy, horticulture, livestock production (beef, sheep, goats, pigs and poultry), cropping, timber and aquaculture. Smaller, specialist enterprises include thoroughbred horse breeding, nurseries, mushrooms, turf and cut-flowers.

Although not formally part of the Goulburn Broken CMA region, the River Murray between Yarrawonga and Echuca, which lies on the border of the Goulburn Broken CMA, is influenced by activities within the Catchment.

Natural resource management challenges

Major 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.

These challenges are being exacerbated by changes in climate. Recent climate events include:

- 2002–2009 extreme drought: exceptionally low stream flows and historically low water allocations. In combination with Commonwealth environmental policy and farm demographic structure, it led to unprecedented irrigated dairy industry restructure.
- 2009 bushfires: covering 185,000 hectares (seven per cent) of the Catchment, with 190 kilometres of vegetation along major rivers were burnt. This has changed patterns of settlement in some areas.
- 2010, 2011 and 2012 floods: while improving the condition of floodplain systems, these floods may change patterns of settlement in some affected areas.

Economy

Natural resource-based industries underpin the Catchment's economy. Livestock, dairy, fruit, vegetable, grape and other food production and processing industries contribute to the Catchment \$15.9 billion gross regional output (2009 figures) with the gross value of agriculture production in the Catchment in 2009–10 being \$1.16 billion. Primary production and manufacturing (especially food processing) account for about 30 per cent of the 77,000 plus jobs in the Catchment economy.

Prolonged drought, low water allocations, dairy industry restructure, the high Australian dollar, and other pressures related to the global financial crisis and increased competition have impacted hard on the Catchment's primary industries. This is illustrated by a decline of 29 per cent in the 2009–10 gross value of agriculture production from the 2005–06 value of \$1.64 billion.

Other economically important industries include building construction and trade, tourism, utilities, transport and communications. Nature-based and cultural heritage tourism and recreation are important employers throughout the Catchment, in particular along the River Murray, the snowfields, historic towns and wineries. The value of tourism, personal and other services has increased substantially from 3.9 per cent in 2001 to 28.6 per cent, or \$2.29 billion, in 2009.

Involvement in natural resource management activities

Involvement by the community in catchment management is broad based. For example in 2006–07, 86 per cent of agricultural-based businesses surveyed in the Catchment reported natural resource management issues on their property. Encouragingly, 99 per cent of those, or 5,055 businesses reporting natural resource management issues also reported they were actively addressing these problems on their farm.

In addition to the effort undertaken by landholders on private land across the Catchment, there is a variety of networks and groups working to achieve natural resource management outcomes on public and private land.

Goulburn Broken Catchment^{i,ii}



(c) The State of Victoria Goulburn Broken Catchment Management Authority 2012

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. The Goulburn Broken CMA Sustainable Irrigation Program oversees delivery in part of the North Central Catchment as well as the Goulburn Broken Catchment.
- ii. Maps of the Catchment showing whole farm plans achieved and onground works sites are included as Appendix 4 and 5 (page 116 and 117).

- July** The Farm Water Program secures \$25 million in Round 2 of the Australian Government's On-Farm Irrigation Efficiency Program. A total of 11 gigalitres of water will be saved as a result of the on-farm irrigation upgrades.
- 160 people attend the first Catchment-wide Landcare Awards held in Nagambie. Award winners include Gecko CLaN (Sustainable Farming), Shepparton High School and Shepparton Bunnings (Education), Koyuga Kanyapella Landcare Group (Community Landcare Group), Upper Goulburn Landcare Network (Community Landcare Network) and Russell Wealands (Hubert Miller Perpetual Trophy).
- More than 90 community and agency representatives attend a comprehensive program of 10 presentations at a Research Reporting Day in Tatura with the theme of 'Meeting the Challenge of Variability'.
- 32 community members attend a tour conducted by the Department of Primary Industries, Goulburn-Murray Water and Goulburn Broken CMA of Millewa Nature Conservation and Kanyapella Basin, highlighting environmental features and progress of groundwater pumping and environmental enhancement works being implemented at both sites.
- Greater Shepparton City Council, supported by the Goulburn Broken CMA and many other organisations, adopts the RiverConnect Strategic Plan, helping to link people with the Shepparton-Mooroopna riverine environs.
- August** A sustainable farming practices seminar by USA-based farmer Joel Salatin and hosted by the Goulburn Broken CMA attracts more than 130 people.
- The fifth anniversary of the Goulburn Broken Local Government Biodiversity Reference Group is celebrated by the Goulburn Broken CMA and partners.
- Goulburn Broken CMA staff members present five papers and organise a workshop session on irrigation modernisation in Australia at the Irrigation Australia Limited conference in Launceston.
- Department of Primary Industries Environment Program and Future Farming Research Systems and Goulburn-Murray Water present a paper on the Millewa Nature Conservation Reserve to the Australian Water Association Catchment Management Conference in Wangaratta.
- The watertable is mapped in the Shepparton Irrigation Region for the 30th year continuing to inform development of whole farm plans.
- September** Goulburn Broken CMA and the Department of Sustainability and Environment coordinate over 40 community events as part of Biodiversity Month celebrations, providing opportunities to learn about and enjoy the flora and fauna across Northern Victoria.
- October** More than 100 people attend a Warby Ranges Landscape Restoration Field Day organised by the Goulburn Broken CMA, Birds Australia, North East CMA and the Department of Sustainability and Environment. The Woodland Birds of North-east Victoria brochure is launched on the day.
- The Goulburn Broken CMA is a Banksia Environmental Award finalist for its work over the last 10 years to promote and protect the values of spring wetlands in the Strathbogie Ranges and the program of engaging Traditional Owners in natural resource management initiatives.
- Goulburn Broken CMA staff and irrigation community representatives present national, state, regional and farm scale perspectives on water management in Australia at the International Commission on Irrigation and Drainage Conference in Tehran, Iran.
- Goulburn Broken CMA staff member, Wayne Tennant, participates in a water engineering management and development tour of China as part of the Bridge of Water Culture initiative with representatives from the Murray-Darling Basin Authority, CSIRO, Chinese universities, members of the Three Gorges Dam Project and the Universities of Melbourne, Monash, Open (UK) and Western Australia.
- The Farm Water Program secures an additional \$43 million from the Victorian On-Farm State Priority Project initiative. A total of 21 gigalitres of water will be saved as a result of the on-farm irrigation upgrades.
- November** Celebration night for community representatives at Benalla concludes 16 years of community engagement under the implementation committee model.
- 25th Anniversary of Landcare Awards at Government House to celebrate and recognise the contribution of Landcare in Victoria with award winners from the Catchment including the Upper Goulburn Landcare Network (Bushfire Recovery Award), Gecko CLaN (Australian Government Innovation in Sustainable Farm Practices Award) and Goulburn Broken CMA staff member Karen Brisbane (Heather Mitchell Memorial Fellowship).
- Goulburn Broken CMA and Goulburn-Murray Water present to the National Water Commission and Murray-Darling Basin Authority on the achievements of the Goulburn Broken CMA groundwater and salt programs and their alignment with research projects into the usage of shallow water tables.
- December** A review of the Biodiversity Strategy for the Goulburn Broken Catchment 2010-15 finds that implementation of the Strategy is progressing well, with 75 per cent of actions either underway or ongoing.
- Goulburn Broken CMA and Goulburn-Murray Water present to the Murray-Darling Basin Authority's Basin Salinity Management Strategy Independent Audit Group showing progress of actions against the Goulburn Broken CMA Salinity Register program targets is on track.
- Goulburn Broken CMA launches its Facebook page and begins interactive online engagement.
- Goulburn Broken CMA hosts a visit from a Chinese delegation of the Three Gorges Corporation.

February Broken Boosey and Whroo Goldfields Conservation Management Network's produce and distribute 5000 2012 calendars to schools, post offices, businesses and agencies across the network regions. The calendar photo competition involves and includes those in the community who might not otherwise be directly engaged in natural resource management in the region, including school students.

A workshop on automation of on-farm irrigation is held in partnership with Rubicon, targeting designers, irrigators and extension staff. It demonstrates a wide acceptance of the benefits of automation in a high flow situation.

Goulburn Broken CMA develops WeConnect.gbcma.vic.gov.au, an online strategy development tool.

March Significant rainfall events across the region result in flooding across the northern part of the Catchment. Goulburn Broken CMA plays an important role in flood intelligence and scenario planning in the Incident Control Centre.

The Goulburn Broken CMA Climate Change Intergration Strategy is endorsed. The Strategy, a first of its kind, consolidates a framework for implementing the Goulburn Broken CMA climate change policy.

A total of 237 on-farm projects are funded through Round 2 of the Farm Water Program, which is funded by the Australian Government's On-Farm Irrigation Efficiency Program and the Victorian Government's On-Farm State Priority Project.

The Broken Boosey and Whroo Goldfields Conservation Management Networks 'Reptiles and Frogs' guide launched with 2,000 copies distributed across the Catchment.

State Member for Benalla Bill Sykes, on behalf of the Minister for Water, formally launches the Nagambie boardwalk signage, a community and Goulburn Broken CMA partnership project.

Goulburn Broken CMA and Goulburn-Murray Water staff host community and agency representatives from the Macallister Irrigation District to discuss groundwater and salinity management.

April Environment and Climate Change Minister Ryan Smith announces \$2.2 million of Catchment projects, funded through the Victorian Communities for Nature program including more than \$590,000 each for the Broken-Boosey and Whroo Goldfields Conservation Management Networks.

Helen Reynolds is elected Chair and Heather du Vallon Deputy Chair at the inaugural meeting of the Sustainable Irrigation Program Advisory Group.

200 people attend the RiverConnect Festival on the banks of the Goulburn River in Shepparton.

May An \$800,000 funding agreement with the Northern Victorian Irrigation Renewal Project is endorsed by the Goulburn Broken CMA Board to assist whole farm plan incentive alignment with Northern Victorian Irrigation Renewal Project connection.

Goulburn Broken CMA presents projects to the National Water Commission 'Knowledge Sharing Road Show' including river health, water planning and management and climate change.

Federal ministers Tony Burke and Greg Combet announce the first round of the Clean Energy Future Biodiversity Fund projects. \$7,468,300 will be invested in the Catchment with the Goulburn Broken CMA receiving \$6,403,000 for projects running over six years.

Minister for the Environment and Climate Change, Ryan Smith, visits flood and fire recovery sites and Strathbogie Ranges Conservation Management Network work sites, launches the iSpy Frogs App and Field Guide, dines with Goulburn Broken CMA and partners, meets Landcare network chairs and facilitators, and launches the Goulburn Broken CMA online strategy development tool WeConnect.vic.gov.au

Water Minister, Peter Walsh, visits a modernised irrigation property at Mooroopna North to acknowledge significant progress of the Goulburn Broken CMA-led Farm Water Program.

June The first water from Round 2 of the On-Farm Irrigation Efficiency Program and Victorian On-Farm State Priority Project funded Farm Water Program projects is transferred to the Australian Government and on-farm works commence.

Goulburn Broken CMA presents papers on farm water, surface water management, environmental water delivery, return of shallow water tables, use of saline water and high flow irrigation research to the International Committee on Irrigation and Drainage and Irrigation Australia Conference in Adelaide. Goulburn Broken CMA also hold a workshop looking at partnerships and the importance of integration in delivering irrigation modernisation in the Catchment.

Nine community forums for the Regional Catchment Strategy review process are held across the Catchment.

Chairman's review



The past 12 months have seen a number of ongoing and new challenges facing the Goulburn Broken Catchment community.

Flooding

Following high-energy upper Catchment floods in 2010 and 2011, much of the flat northern part of the Catchment was inundated for several months from March 2012 when the Broken-Boosey system

received its largest flood on record. The Goulburn Broken CMA again played a very important role in the Incident Control Centre by providing up-to-date flood intelligence. The Goulburn Broken CMA was directed by the Victorian Government to invoke Section 133 of the Water Act 1989, a first for Victorian CMAs, resulting in construction of an emergency temporary sandbag levee on private land. Since the flood, the Goulburn Broken CMA and partner agencies, such as Goulburn-Murray Water, the Department of Sustainability and Environment, the Department of Primary Industries and local government, have been implementing flood recovery activities.

Murray-Darling Basin Authority Basin Plan

While responding to natural disasters, the Murray-Darling Basin Authority Basin Plan debate continued. The Goulburn Broken CMA's comprehensive response to the proposed Basin Plan, which highlights the importance of regional socio-economic factors, aligns with the Victorian Northern Region Sustainable Water Strategy, supporting environmental flows, recognising flow constraints, emphasising water savings from works and measures and the need to maintain momentum in salinity and water quality strategies.

Environmental Water

From mid-2011, as part of legislation that established the Victorian Environmental Water Holder, CMAs must plan how environmental water will be deployed in rivers and wetlands. The Goulburn Broken CMA Board endorsed the 2011-12 Broken Creek, Goulburn River, Barmah-Millewa, and wetland seasonal watering proposals to use available river flows and environmental entitlements in the Goulburn and Murray water supply systems. As part of implementing these plans, 155 gigalitres were delivered down the Goulburn River from late October 2011 to January 2012, the largest environmental flow in Victoria's history, with the flow-release pattern aimed at triggering spawning of Golden Perch, improving macro-invertebrate habitat and in-stream vegetation, and providing benefits to the Lower Lakes in South Australia.

Farm Water Program

The Goulburn Broken CMA continues to lead the Farm Water Program consortium of North Central and North East CMAs, Goulburn-Murray Water, Northern Victorian Irrigation Renewal Project, Dairy Australia, Murray Dairy, Northern Victorian Irrigators Inc, Department of Sustainability and Environment and Department of Primary Industries in delivering the Farm Water Program, generating valuable environmental water for the catchments and consolidating a viable irrigation industry. The consortium has received more than \$100 million from the Australian and Victorian governments for 360 on-farm irrigation infrastructure upgrade projects across the Goulburn Murray Irrigation District that is expected to save 52 gigalitres (with half of the water savings to be transferred to the Commonwealth and Victorian governments and half to remain on-farm). The demand for on-farm efficiency improvements is greater than the funding currently available through the Farm Water Program. The challenges will be continuing to highlight the value of this type of project to government compared to buy-back, and securing funds for all willing participants across the Goulburn Murray Irrigation District.

Clean Energy Future Strategy

The Australian Government's Carbon Farming Initiative and Clean Energy Future Land Sector Package precipitated opportunities for promoting carbon capture in the Catchment, including a very successful seminar on sustainable farming practices, hosted by the Goulburn Broken CMA and led by USA-based farmer, Joel Salatin, which was attended by more than 130 people. In May 2012, the Catchment's communities captured \$7.5 million in the first round of the Biodiversity Fund, which aims to achieve biodiversity gains while capturing carbon from the atmosphere.

Community Engagement

The new community engagement model was implemented across the Catchment in 2011-12. Current and past members of our implementation committees were recognised for their contribution to catchment management in a night of celebration in November 2011. Since then a new Sustainable Irrigation Program Advisory Group, community Environmental Water advisory groups for the Goulburn and Broken River systems, and a Land and Biodiversity Implementation Forum and Land Health Forum have been established. The Goulburn Broken Local Government Biodiversity Reference Group also celebrated its fifth anniversary in August 2011, with contributions of all eight local governments in the Catchment, Department of Sustainability and Environment, VicRoads, Goulburn-Murray Water and the Goulburn Broken CMA duly acknowledged. A number of other community engagement structures were reviewed, resulting in the Goulburn Broken CMA establishing a social media presence through Facebook, Twitter and a Wiki. Community-based natural resource management activity continued to be reinvigorated with the funding of seven Landcare facilitators in the region, through the Victorian Government's Landcare Facilitator Initiative, and the establishment of two new Conservation Management Networks. The Chief Executive Officer also instigated regular meetings with Landcare network chairs to discuss strategic natural resource management alignment and will look to expand this network further in 2012-13.

Goulburn Broken Regional Catchment Strategy

The review of the Goulburn Broken Regional Catchment Strategy has occupied a lot of the Goulburn Broken CMA's time since late 2011. The Board has driven a very inclusive process, providing all interested parties with an opportunity to have input, underpinned by reviews of sub-strategies (such as the Biodiversity Strategy for the Goulburn Broken Catchment), development of the Goulburn Broken CMA Climate Change Integration Strategy in 2011-12 and an understanding of current drivers of change, and the opportunity for all interested parties to have input. The renewed Regional Catchment Strategy will cover the period 2012-18 and the Goulburn Broken CMA has embraced a new approach to drive investment prioritisation based on an understanding of the thresholds affecting the resilience of six different social-ecological systems that make up the Catchment.

The development of the Regional Catchment Strategy aligns with implementation of the Hume Strategy for Sustainable Communities 2010-20. Importantly, the Goulburn Broken CMA has ensured the Regional Catchment Strategy influences development of the Hume Region Growth Plan so that environmental perspectives and resilience thinking is integrated with land use planning as the region prepares for growth, which is predicted to be the highest in regional Victoria, during the next 20 years.

Thank You

The ongoing success of the Goulburn Broken CMA during 2011-12 is attributable to the professionalism and dedication of the Chief Executive Officer, Chris Norman, the management and staff and the efforts of our partners and community in implementing the various works programs to improve the environmental health and community wellbeing in the Catchment.

The Goulburn Broken CMA is a statutory authority of the Victorian Government. Support for some of its activities comes from the Victorian Government through the Department of Sustainability and Environment under the authority of the Minister for the Environment and Climate Change, Mr Ryan Smith, and the Minister for Water, Mr Peter Walsh. The Goulburn Broken CMA is most grateful to the Ministers and the officers of the Department of Sustainability and Environment for their ongoing support. The Goulburn Broken CMA also acknowledges and appreciates the significant support it receives from the Australian Government, particularly through the Caring for our Country program.

The governance and advice provided by the Board has been invaluable and I wish to acknowledge the very high level of contribution from the new Directors appointed in October 2011, namely Dr John Craven, Mr Mike Dalmau, Ms Ailsa Fox, Mr Sandy MacKenzie, Mr Ross Runnalls and Ms Rien Silverstein. These members, along with the continuing excellent input from Mr Murray Chapman and Mr Russell Pell, will be critical in providing direction to the Goulburn Broken CMA as it seeks business efficiencies and embedding catchment resilience in the way we operate whilst facing a range of funding challenges.

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 30th June 2012.



Peter F Ryan
Chairman

Chief Executive Officer's report



The Goulburn Broken CMA continued to successfully deliver important environmental programs during 2011-12 in the face of significant change. This delivery was underpinned by strong regional partnerships and a skilled and committed workforce. Both of which, when complemented by a progressive Catchment community, have challenged the Goulburn Broken CMA to continually develop new programs and new management approaches within a dynamic environment. In the last 12 months, this has been epitomised through the review of our Regional Catchment Strategy which describes how we have evolved over the past 20 years from a focus on a single threat (salinity) to integrated catchment management (including water quality and biodiversity) to an understanding of ecosystem services (such as clean air and water, productive soils) to now embedding resilience into our thinking and planning. Resilience is an understanding of how a system can maintain its functions (i.e. deliver the valuable ecosystem services we need) while coping with all the changes imposed upon it. This resilience approach will see us deliver activities in the future based on six social-ecological systems characterised in the Goulburn Broken Catchment.

Community Engagement

One of the key changes implemented during 2011-12 by the Goulburn Broken CMA has been a new approach to community engagement moving from two implementation committees to a broad range of community advisory groups with a 'whole of catchment' focus based on our three delivery programs, namely Sustainable Irrigation, Land and Biodiversity, and River and Wetland Health and Floodplain Management. This has been complemented by a continued focus on community natural resource management groups, such as the 93 Landcare groups and six networks, five Conservation Management Networks, and various alliances and "friends of" groups. The Goulburn Broken CMA has significantly increased its media coverage in 2011-12 (including a total of 55 media releases), run a number of community events and field days, and established a comprehensive online presence using social media to engage with a broader range of our community.

An initial step in implementing the Goulburn Broken CMA's new engagement strategy was to host the first ever 'whole of catchment' Landcare Awards in July 2011. This was attended by 160 people with award winners including the Gecko CLaN (Sustainable Farming Award), Shepparton High School and Bunnings Shepparton (Education Award), Koyuga Kanyapella Landcare Group (Community Landcare Group Award), Upper Goulburn Landcare Network (Community Landcare Network Award), and Russell Wealds (Hubert Miller Perpetual Trophy).

Responding to Natural Disasters

Natural disasters again shaped our onground works during 2011-12. We implemented a Flood Employment Program in the Cornella and Wanalta Creek catchment areas in response to the 2010 and 2011 floods in conjunction with the Cornella Local Area Plan Implementation Committee. The Program provided valuable employment for local farmers in the region while rehabilitating damaged natural assets and infrastructure. This delivered more than 90 works projects involving 28 landowners including 57 flood damaged creek crossings repaired, 13 kilometres of damaged fencing removed and replaced, 23 hectares of weed control and 5 hectares of revegetation. In response to the 2012 floods, the Goulburn Broken CMA submitted a Natural Disaster Relief and Recovery Arrangements funding application for \$738,000 to repair flood affected waterways throughout the Broken-Boosey Creek system. In addition, flood studies have been instigated for Shepparton East Overland, Shepparton Mooroopna, Corop Lake and Violet Town. The Goulburn Broken CMA also presented to the Victorian Government Environment and Natural Resources Committee Inquiry on Waterway Management on two occasions, sharing our experiences and learnings.

Successful Program Delivery

Environmental water delivery occupied a lot of planning and monitoring time during 2011-12. Annual Watering Plans were implemented for the Goulburn River, Broken Creek, Barmah-Millewa Forest and key regulated wetlands. Environmental water allocations, along with significant rainfall in early March, saw a significant Golden Perch and Silver Perch spawning event, but unfortunately also an explosion in carp breeding across the Catchment. Thousands of waterbirds bred in our wetlands after a period of dryness. Ironically, the challenge for these wetlands during the next 12 months will be to reinstate a drying regime.

The Farm Water Program continued to capture funding for irrigators across the Goulburn Murray Irrigation District to modernise their farms in alignment with the irrigation modernisation work undertaken by the Northern Victorian Irrigation Renewal Project. By the end of June 2012, the Farm Water Program had captured more than of \$100 million, including \$25 million from round two of the Australian Government's On-Farm Irrigation Efficiency Program and \$43 million from the Victorian Government's On-farm State Priority Program in 2011-12. Almost 60 per cent of the 148 Round 1 projects have been completed generating 18 gigalitres of water to be shared between the environment and on-farm to drive increased production. The works completed to date include lasering (1,696 hectares); drainage (752 hectares); fast flow and automation (752 hectares); farm channel reconnection, fast flow and automation (210 hectares); pipe and rise, fast flow and automation (3,152 hectares); irrigation scheduling (157 hectares); and farm channel upgrades (6.1 kilometres). The success of this Program was highlighted at the International Commission on Irrigation and Drainage Conference in Tehran, Iran in October 2011. Program achievements were also acknowledged by Water Minister, Peter Walsh, in May 2012 when he inspected a modernised irrigation property at Mooroopna North.

2012 represents the 30th year of watertable mapping across the Shepparton Irrigation Region. The Sustainable Irrigation Program has used this data to drive implementation of 223 whole farm plans and 0.6 kilometres of drains over the past 12 months, complementing works completed since 1990.

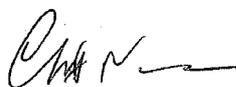
During 2011-12, the Goulburn Broken CMA implemented the wetland and woodland tender programs across 848 hectares involving 120 landholders. This project is driving significant environmental gains in high priority areas. In May 2012, the Goulburn Broken CMA was also notified that three of its four Biodiversity Fund applications were successful to a total value of \$6.40million. These projects will be delivered over the next six years, supporting the key strategic directions of the Biodiversity Strategy for the Goulburn Broken Catchment.

In late May 2012 Environment and Climate Change Minister, Ryan Smith, visited the Catchment. During his visit, the Minister launched the iSpy Frogs App and Field Guide, developed in conjunction with the Broken Boosey Conservation Management Network and Museum Victoria.

Driving Efficiencies

With the next 12 months providing a number of funding challenges for the Goulburn Broken CMA and its partners, the organisation will be looking to drive further efficiencies through our delivery approaches and internal operations. This focus will be guided by the Organisational Business Performance Review undertaken in October 2011. This Review benchmarked us against other natural resource management bodies across Australia who have undertaken a similar review. The Goulburn Broken CMA was assessed as performing in the top quartile for five of the seven criteria and the top half for the remaining two. The priorities from this work over the next 12 months includes a Workforce Strategy, clarity of decision making processes, a formal continuous improvement approach, and a review of the structure and use of the Corporate Plan. Future delivery models will be influenced by the implementation of the 2012-18 Regional Catchment Strategy and new projects captured through the Biodiversity Fund and Farm Water Program, as well as preparing for the release of the Caring for our Country Business Plan phase two. Underpinning all of this is a dedicated workforce committed to the Goulburn Broken Catchment. Results from the June 2012 People Matter Survey reinforced this with 85 per cent of the Goulburn Broken CMA staff achieving high job satisfaction (up from 81 per cent in 2010).

In meeting these challenges, the Goulburn Broken CMA looks forward to its ongoing partnership with the Department of Sustainability and Environment, Department of Primary Industries, Department of Planning and Community Development, Department of Sustainability, Environment, Water, Population and Communities, Department of Agriculture Fisheries and Forestry, Goulburn-Murray Water, Goulburn Valley Water, Parks Victoria, Trust for Nature, Murray Dairy, local government, Victorian Farmers Federation, Traditional Owner groups, and the Catchment community. I personally thank the Goulburn Broken CMA Board for its continued encouragement, ably led by Chairman Peter Ryan. Finally, I thank the staff of the Goulburn Broken CMA for their tremendous support over the past 12 months and look forward to working with them to continue our work in building the resilience of the Goulburn Broken Catchment.



Chris Norman
Chief Executive Officer

Annual scorecards

Most output targets listed in the Corporate Plan were achieved in 2011-12. There were few works targets that were not met (see Appendix 3, Outputs detailed list of achievements, on page 114).

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

Appendix 1, 'Understanding progress and ratings' (page 78), 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)				2011-12 performance ^{iv} (outputs)	Details page
	2009-10 \$000	2010-11 \$000	2011-12 \$000	Forecast ⁱⁱⁱ 2012-13 \$000		
The Environment						
1 Sustainable irrigation						80
1a Shepparton Irrigation Region salinity	8,607	29,631	24,928	47,247	On target	80
2 River and wetland health and floodplain management						85
2a Environmental flows	<i>Combined investment of 2a, 2b & 2c: 12,398^v</i>	<i>Combined investment of 2a, 2b & 2c: 5,599</i>	<i>Combined investment of 2a, 2b & 2c: 5,430</i>	<i>Combined investment of 2a, 2b & 2c: 3,896</i>	On target	88
2b Riparian and instream habitat and channel form					On target	90
2c Water quality (nutrients) in rivers and streams					On target	93
2d Floodplain management	614	832	496	362	On target	97
3 Land and biodiversity						99
3a Biodiversity	2,512	6,467	5,244	4,450	On target	100
3b Land health including dryland salinity	1,821	433	1,293	1,337		106
3c Invasive plants and animals ^{vi}	0	0	0		On target	111
The Business (Corporate)						
A Governance ^{vii}	2,025	1,918	1,516	1,113	On target	35
B Collaborations and communities	1,928	1,700	710	742	On target	17
C Planning and responding	Part of A					22
D Human resources ^{viii}	4,402	6,436	6,153		On target	29
E Environmental footprint ^{viii}	0	18	20	25	On target	27

ⁱ Investment areas and integration between them are described in Appendix 1 on page 78.

ⁱⁱ Investment figures include funding to partners.

ⁱⁱⁱ Based on advice at August 2012.

^{iv} Performance ratings are based on outputs achieved as listed under investment area details in this annual report. Targets are determined by considering levels of government funding as listed in the Corporate Plan only (government funds or funds from other sources arriving after the Corporate Plan was finalised are not considered within these targets). Outputs are described in Appendix 3 on page 114.

^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 Pest Plants and Animal program is not included in the regional investment process for 2009-10, 2010-11 and 2011-12.

^{vii} Amount restated in 2009-10 to include Planning and responding investment, ensuring consistency with 2010-11 and 2011-12 reporting. Amounts in 2009-10 and 2010-11 included asset sales.

^{viii} These are costs rather than investment. Costs are embedded within other investment areas.

Aggregate output performance across all investment areasⁱ in 2011-12

Output ⁱ	Achieved	Target ⁱⁱ	Performance	
			% achieved	Rating
Remnant vegetation fenced, hectares	888	869	102	On target
Long-term conservation agreements, hectares ⁱⁱⁱ	360	384	94	On target
Indigenous revegetation (planted), hectares	1995	1885	106	On target
Irrigation drains built, kilometres	0.6	3		Well below target
Reuse systems installed, numbers	25	22	115	Exceeded target
Irrigation systems improved in SIR, hectares	24,000	24,145	101	On target
Groundwater pumps installed, numbers	1	1	100	On target
Weeds treated, hectares	1372	668	205	Exceeded target
Rabbits and foxes treated, hectares	60882	575	note ^{iv}	Exceeded target
River or stream bed and bank protection actions, kilometres	19	7.5	252	Exceeded target
Fishway structures installed and barriers modified, numbers	2	1	200	Exceeded target
Aquatic habitat works ^v , numbers	20	25	78	Below target ^{vii}
Threatened species projects, numbers	110	110	100	On target
Whole farm plans prepared, numbers	365	335	109	On target

i Outputs shown in this table are derived from the more detailed set on page 114. Outputs are described in Appendix 1 on page 78. Detailed outputs relating to each investment area are listed in sections devoted to each investment area throughout this report.

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

iii These are shown as 'Binding management agreements' in the detailed outputs on page 114.

iv Fox control outputs were achieved through the Broken Boosey and Whroo Goldfields CMNs and the 2011-12 target is low because additional funding was obtained during the year, after the Corporate Plan was finalised.

v These are shown as 'Significantly Enhanced Aquatic Refugia' in the outputs table on page 114.

Descriptions of output performance

Case studies (on pages 21, 84, 96 and 110) and investment area details (Appendix 2, page 80 to 113) describe actions undertaken in 2011-12 and illustrate integration between programs, government agencies, regional authorities, community organisations and individuals.

Outputs achieved 2003-04 to 2011-12 and forecast 2012-13

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

The 13-year long dry period up until 2010 resulted in greater emphasis on water-use efficiency actions, such as installing reuse systems and improving irrigation systems, which are consistent with directions set in 1989 and 1996 (see page 83) that targeted achieving salinity benefits and water quality.

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

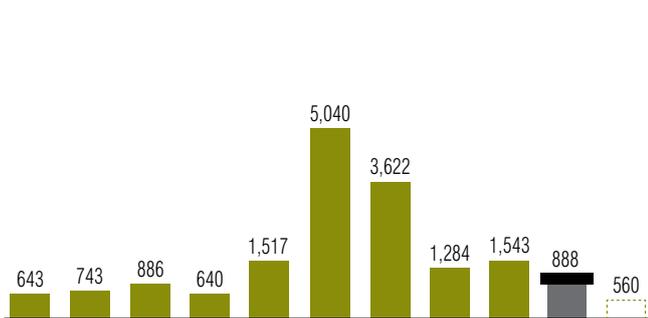
Whole farm plans ensure that works at the farm scale are consistent with the needs of the Catchment, as described in whole-of-Catchment strategies and plans. A total of 92.6 per cent of the farmed area in the Shepparton Irrigation Region is covered by whole farm plans, which are critical to capitalise on investment in modernising irrigation delivery infrastructure through the Northern Victoria Irrigation Renewal Project (see page 82 and map in Appendix 4, page 116).

Outputs shown in the following graphs are derived from the more detailed set of outputs on page 114. Outputs, including limitations in measuring them, are described in Appendix 1 on page 78.

Note on forecast targets:

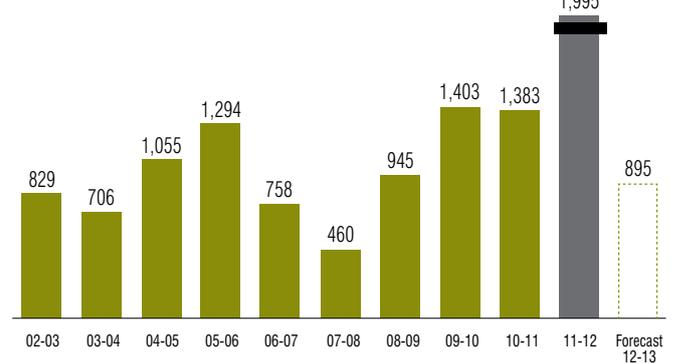
Forecast output targets are generally lower than what was achieved previously because they are based on indicative rather than actual funding received. Forecasts are based on figures cited in the Corporate Plan for the forthcoming financial year and do not take into account new funding opportunities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

Remnant vegetation fenced, ha



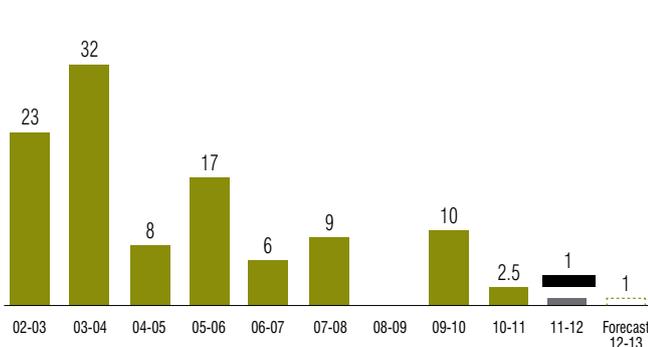
Significant areas of remnants were again fenced as a result of environmental grants and other projects. (Increased achievements in 2007-08 and 2008-09 were largely due to Drought Employment Program funding, which finished in 2008-09.)

Indigenous revegetation (planted), ha



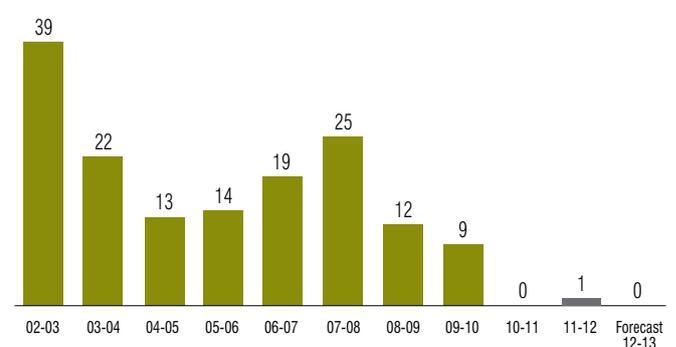
Substantial areas were revegetated in 2011-12 through a range of projects. Graph includes natural regeneration and revegetation works as part of these achievements and target figures.

Irrigation drains built, km



While core actions of the 1990 salinity plan continue to be implemented (page 80), reduced funding in 2011-12 resulted in decreased achievements. Groundwater investigations were completed at six sites two were suitable for private pumping. There are no investigations in progress or on the waiting list.

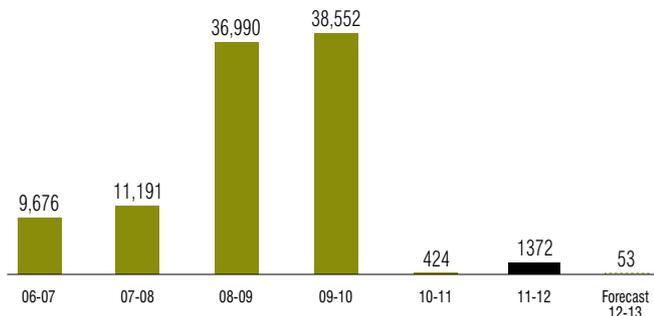
Groundwater pumps installed, numbers



Legend

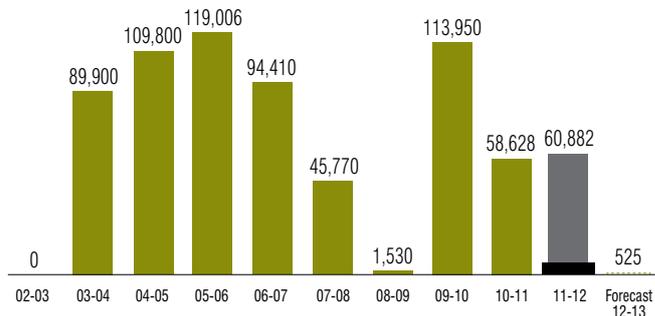
■ Target for 2011-12

Weeds treated, ha



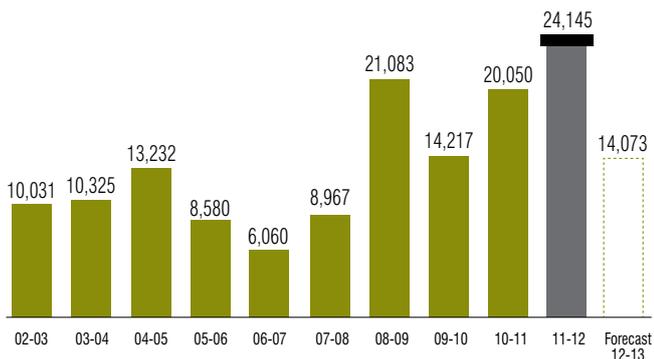
Note: The Department of Primary Industries Biosecurity Victoria's Pest Plant and Animal Program was removed from the Goulburn Broken CMA's investment process from 2009-10, although the Program's achievements were reported in Goulburn Broken CMA's 2009-10 Annual Report.

Rabbits and foxes treated, ha



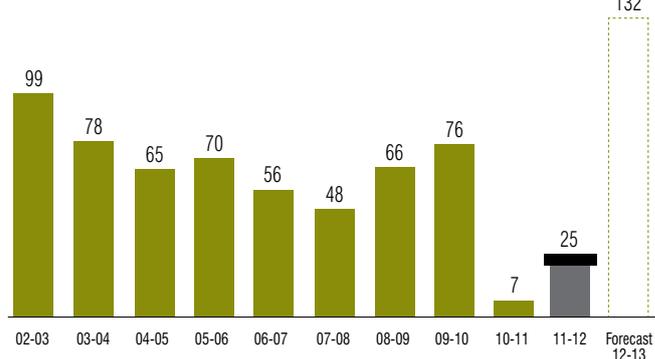
Whroo Goldfields and Broken Boosey Conservation Management Networks (CMNs) are major contributors to fox control (page 112). (Funding for CMNs was received after Corporate Plan targets were set.)

Irrigation systems improved in Shepparton Irrigation Region, ha



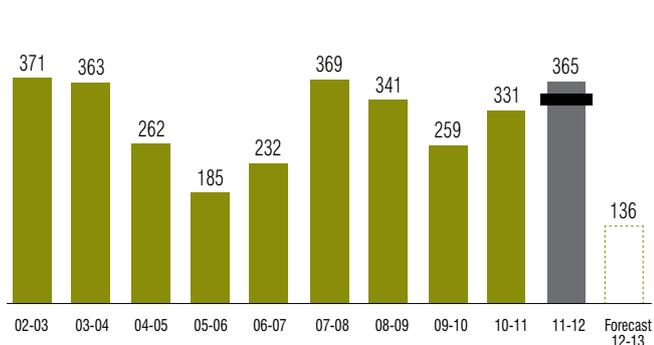
This includes actual works undertaken through the Farm Water Program (4,304 hectares) plus works expected to be completed (assumption of 90 per cent) through the development of Whole Farm Plans.

Reuse systems installed, numbers



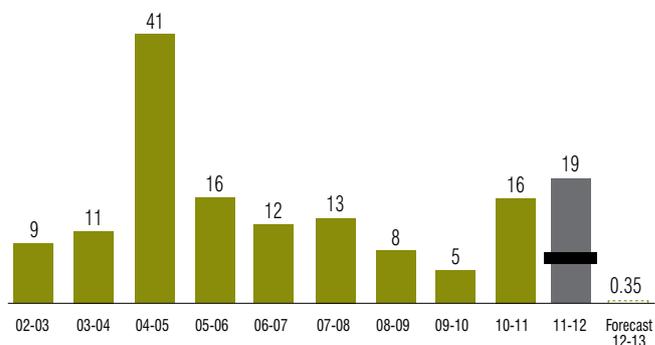
Investment in reuse systems recommenced via the Farm Water Program (page 112).

Whole farm plans prepared, numbers



Strong demand across the dryland and Shepparton Irrigation Region continues.

River or stream bed and bank protection actions, km



Forecast for 2012-13 reflects changes to priorities and reduced funding.

Legend

■ Target for 2011-12

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, which reflect the infancy of natural resource management as a discipline.

Ratings in the following table are explained in investment area reports (as referenced in the right hand column). Appendix 1, 'Understanding progress and ratings' (page 78), discusses issues related to measuring progress.

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

Long-term strategy implementation progress and Catchment condition

Investment area	Long-term strategy implementation progress ⁱ			Catchment condition ⁱ			Details page
	Strategy life ⁱⁱ	Progress	Gov't funding trend	1990 ⁱⁱⁱ	2012	Trend	
The Environment							
1 Salinity: watertables and River Murray salinity							
1a Shepparton Irrigation Region salinity	1990-2020	On target	●	Poor	Good	↓	80
2 River and wetland health and floodplain management							
2a Environmental flows	2004-present	On target	↓	Poor	Good	↑	88
2b Riparian and instream habitat and channel form	2005-2015	Below target	↓	Poor	Satisfactory ^{iv}	↑	90
2c Water quality (nutrients) in rivers and streams	1996-2016	Exceeding target	↓	Very poor	Satisfactory ^{iv}	↑	93
2d Floodplain management	2002-2012	Exceeding target	↓	Very poor	Poor	↑	97
3 Land and biodiversity							
3a Biodiversity	2000-2030 2010-2015	On target	↓	Poor	Poor ^v	●	100
3b Land health including dryland salinity	1990-2050	Below target	●	Poor	Satisfactory	↑	106
3c Invasive plants and animals	2010-2015	Below target	●	Poor	Poor	●	111
The Business (Corporate)							
A Governance	Rolling 5 year Corporate Plan	On target	↓	n.a.	Satisfactory	●	35
B Collaborations and communities	2005-present	On target	●	Poor	Satisfactory	↑	17
C Planning and responding	Rolling 5 year Corporate Plan	On target	●	Poor	Satisfactory	↑	22
D Human resources	various	On target	●	Satisfactory	Good	↑	29
E Environmental footprint	2012-14	On target	●	Very poor ^v	Poor ^v	↑	27

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 on page 78 describes the ratings methodology in more detail.

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

iii Ratings for 1990 have been determined using our understanding in 2012 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 Chris Norman, Amanda McClaren, Tony Kubeil, Carl Walters, Gaye Sutherland, Neville Atkinson, Karen Brisbane, Simon Casanelia, Jane Roots, Helen Murdoch, Rhiannon Apted, Rachael Spokes, Rod McLennan and Melanie Haddow.

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	2012	Certainty of rating	Trend
2011-12 performance	Outputs (against targets set as a result of funds received) Corporate Plan KPIs (see page 47)	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	n.a.
Catchment condition ^{iv}	<ul style="list-style-type: none"> - Surveys of strengths of relationships - Memoranda of understanding - Charters for various community engagement groups - Uniform regulations developed - Joint forums - Shared staffing - Funds from various sources contributing to natural resource management - Corporate memory - Management systems 	Poor	Low	Satisfactory	Low	↑

i See Appendix 1 for notes on the analytical framework (page 78), including an explanation of the decision focus and ratings.

ii Ratings for 1990 have been determined using our understanding in 2012 of what the situation was like in 1990.

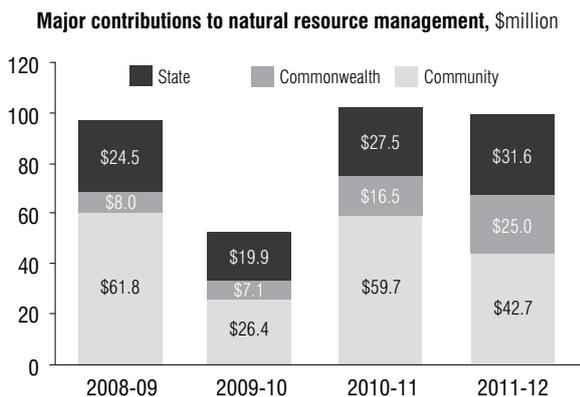
iii Assumed to parallel government funding trend.

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

This section demonstrates how the Goulburn Broken CMA is committed to stakeholder involvement, integration of disciplines and onground works.

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



i Community investment increased significantly from 2009-10 because of major contributions from the State (\$10.7 million in 2010-11 and \$43 million in 2011-12) and the Commonwealth Government (\$12 million in 2010-11 and \$25 million in 2011-12) to the Farm Water program.

ii. Included in the 2010-11 contributions is \$5.3 million from the Farm Water Program which is reflected as unearned revenue in the Financial Statements

iii. Included in the 2011-12 contributions is \$17.5 million (\$10.5 million Commonwealth and \$4.7 million State) from the Farm Water Program which is reflected as unearned revenue in the Financial Statements.

Government investment, \$000

2009-10	2010-11	2011-12	2012-13 ⁱ	Trend
1,928	1,700	710	742	●

i Forecast based on funding advice at August 2012.

Major strategic references

- Goulburn Broken Community Landcare Support Strategy, 2009-11
- *Aboriginal Heritage Act, 2006*
- COAG Closing the Gap initiative, 2008
- Yorta Yorta Cooperative Management Agreement, 2004
- Yorta Yorta Traditional Land Management Agreement, 2010
- Goulburn Broken CMA Communication and Marketing Strategy, 2010-2011
- Goulburn Broken CMA Community Engagement Plan, 2011-12
- Various memoranda of understanding

Stakeholders include private landholders, Victorian and Australian government funders, government agencies, corporate and philanthropic funders, Traditional Owners, local government, community natural resource management groups, individuals and politicians. The table in Appendix 6 on page 118 summarises the Goulburn Broken CMA's relationships with stakeholders.

Traditional Owners are recognised through the Council of Australian Governments Closing the Gap initiative (2008); and the Victorian Government's *Aboriginal Heritage Act 2006*. There are also cooperative management and traditional land management agreements that direct the Goulburn Broken CMA to engage Traditional Owners through Registered Aboriginal Parties, the Taungurung Clans Aboriginal Corporation and the Yorta Yorta Nation Aboriginal Corporation.

New Program and engagement structure

In 2011-12, the Goulburn Broken CMA implemented a new strategic planning framework that aligns strategy, investment, staffing structures and community engagement approaches.

The new approach supports a 'whole of catchment' focus for some aspects of community engagement, while allowing for models to vary across the Catchment for other elements. It also retains parts of existing models that are working well.

The Shepparton Irrigation Region and Broken Goulburn implementation committees were replaced in October 2011 by program-based community engagement approaches, including a commitment to whole-of-catchment community forums that advise senior management and support the three delivery programs (Sustainable Irrigation, Land and Biodiversity, and River and Wetland Health and Floodplain Management). This model assumes that community engagement is primarily about advising program delivery, not directly overseeing implementation.

Whole of Catchment		
<p>Traditional Owners engagement</p> <p>Promote and incorporate the protection of Aboriginal Cultural Heritage between Registered Aboriginal Parties and partner agencies</p> <p>Indigenous Facilitator and Cultural Heritage Advisor support the Indigenous programs fostering trust between wider and Indigenous communities and protection of Traditional Owners' values</p>	<p>Community forums</p> <p>Act as a barometer for community natural resource management issues, advising on local priorities and providing input into strategy development</p>	<p>Community-based natural resource management groups</p> <p>Meetings with the six Landcare network chairs strengthens relationships and connection to Goulburn Broken CMA and its Board</p> <p>Support provided for groups to access information and funding to achieve regional and local priorities</p>
Delivery Programs		
<p>Sustainable Irrigation</p> <p>Sustainable Irrigation Program Advisory Group and supporting working groups</p> <p>Supports and communicates the implementation of sustainable irrigation priorities and provides feedback on community views</p> <p>Engages the community and assists with a program of works delivered by government agencies, regional authorities and landholders</p> <p>Involves community representatives with partner agency support</p>	<p>Land and Biodiversity</p> <p>Land and Biodiversity Implementation Forum</p> <p>Brings community groups and delivery partners together to discuss direct and plan onground delivery and funding opportunities</p> <p>Land Health Forum</p> <p>Works with community and industry in landscapes that had agriculture as a primary land use, intergrating opportunities for funding and training</p> <p>Individual landholder visits</p> <p>landholders who sign five and 10 year management agreements are visited at least once per year, a service highly valued by landholders</p>	<p>River and Wetland Health and Floodplain Management</p> <p>Broken and Goulburn Environmental Water Advisory Groups</p> <p>Advise on environmental water use, including seasonal watering proposals and water management plans, and environmental health trends in rivers, creeks and wetlands. The groups comprise of community members and partner agencies</p>

2011-12 performance

The Goulburn Broken CMA Communication and Engagement Plan 2011-12 heralded several new approaches and people influenced strategies and priorities in many and varied ways.

The current revision of the Regional Catchment Strategy recognises the critical role of people in making the Catchment resilient, and many opportunities for individual and other stakeholder contributions to the Strategy were created via one-on-one interviews, community forums, expert panels, workshops, community forums, and the Goulburn Broken CMA's first foray into social media.

The Sustainable Irrigation Program Advisory Group, two environmental water advisory groups, and a Land Health Forum were established.

Landcare networks and groups, Conservation Management Networks, Traditional Owners, agency partners and the Catchment's eight local governments continued to be heavily involved in development of priorities and program delivery.

Community education activities were often conducted in partnership with other agencies.

Whole-of catchment

Fifty five media releases prepared in 2011-12, an increase on the 42 media releases generated in 2010-11. Media releases were complemented by paid print advertisements and television and radio interviews. A new style was applied to the website after several years of consultation.

The Goulburn Broken CMA launched into the world of social media with a Facebook page, Twitter account and used an online Wiki website WeConnect.gbcma.vic.gov.au as an important part of its Regional Catchment Strategy review process. A number of videos were uploaded on to the Facebook page and a Social Media Usage Procedure was developed for staff.

Community forums on the review of the Regional Catchment Strategy were held in Kilmore, Kinglake, Yea, Mansfield, Nagambie, Dookie, Tatura, Nathalia and Marysville.

The resilience-approach being developed and implemented via the review of the Regional Catchment Strategy is presenting new perspectives on how the links between people and nature can be more precisely targeted: engagement methods are expected to continually evolve. The Goulburn Broken CMA has taken the opportunity to extensively canvas the ideas with community members and other stakeholders while reviewing the Regional Catchment Strategy involving in-depth face-to-face interviews of 62 members of the Catchment's communities, several workshops totalling 63 participants, and opportunities for on-line contributions involving more than 500 participants (see also 'Planning and responding' section page 22).

This change to the community engagement process has improved communications between the natural resource management community (including Landcare, Conservation Management Networks, "friends of" and focus groups) and the Goulburn Broken CMA. Regular meetings with the six Landcare network chairs has further strengthened relationships. Removing the geographic divide within the Catchment has also allowed efficiency gains in the delivery of catchment-wide community education grants and a single Landcare Awards evening. 135 people attended the 2011-12 Landcare Awards evening in August 2012. Award winners were;

Goulburn Murray Landcare Network (Education), Strathallan Family Landcare Group (Community Group), Whroo Goldfields Conservation Management Network (Network) and Shirley Saywell (Hubert Miller Perpetual).

The Goulburn Broken CMA continued to maintain strong relationships with all eight local government authorities in the Catchment with the CEO and Regional Catchment Strategy Coordinator meeting with each to discuss the Regional Catchment Strategy review and key natural resource management issues facing municipalities.

River and Wetland Health and Floodplain Management

In 2011-12 the Goulburn Broken CMA and Taungurung Clans Aboriginal Corporation established a Memorandum of Understanding to target Blackberry and Willow (Weeds of National Significance) across Taungurung Country with a focus on spring soaks and alpine bogs in the upper Catchment. The three-year program supports a partnership between the Goulburn Broken CMA and the Taungurung community to Work on Country and to facilitate collation and exchange of Traditional Ecological Knowledge. These projects involve interpretive signage on Taungurung country and the recording of cultural sites and artefacts located during weed control activities. In addition to developing relationships with landholders involved directly in the protection of wetlands, the project also assisted in developing partnerships between the Corporation and community; through Landcare, the Strathbogie Ranges Conservation Management Network and a local primary school.

Yorta Yorta Nation Aboriginal Corporation, with the support of Goulburn Broken CMA through Australian Government Caring for our Country funding, established a business model and prospectus to establish Woka Wolla, a business arm of the Corporation that establishes Indigenous work teams to undertake contract works in natural resource management across Yorta Yorta Country. Woka Wolla fences, revegetates and controls weeds across Yorta Yorta Country as part of the Protecting the Ecological Character of Barmah (Caring for our Country) project, Sand Ridge Woodland (Caring for our Country) project and the Dookie Biolinks Program. A plan is also being drafted to better engage Traditional Owners in natural resource management across Yorta Yorta Country.

Traditional Ecological Knowledge exchange between Yorta Yorta and the wider community is also being promoted through signage projects within Barmah National Park and the development of an inventory of cultural sites within the Ramsar Wetland area.

The Goulburn Broken CMA and the Yorta Yorta conducted a five-day Yorta Yorta Youth Journey in October, which involved a hiking and canoeing tour across Country from the Warby Ranges to the Barmah Lakes. Yorta Yorta Elders and Goulburn Broken CMA and partner agency staff worked with 30 Indigenous secondary school students from across Yorta Yorta Country on natural and cultural resource management, leadership skill training and in facilitating the exchange of Traditional Ecological Knowledge.

The Goulburn Broken CMA continued to support WaterWatch and RiverConnect in 2011-12. WaterWatch continues to be a highly successful community education program and its activities will be integrated into natural resource management programs. WaterWatch established a monitoring regime to assess impacts of regional flooding and the possible identification of blackwater and low dissolved oxygen. This project complimented real-time monitoring. The RiverConnect Strategic Plan was formally launched at the inaugural RiverConnect Festival in April 2012. RiverConnect also conducted community guided tour training and spotlight walks.

The Broken Environmental Water Advisory Group and the Goulburn Environmental Water Advisory Group were established to advise on environmental water use, including seasonal watering proposals and water management plans, and environmental health trends in rivers, creeks and wetlands. The groups comprise community members and representatives from partner agencies such as Department of Primary Industries, Department of Sustainability and Environment, and Goulburn-Murray Water.

Land and Biodiversity

Highlights for the Land and Biodiversity Implementation Forum this year included a session where all stakeholders discussed Catchment projects, providing an opportunity for collaboration and an information session looking at communication with landholders and best practice management of woodlands.

A Land Health Forum was established by the Goulburn Broken CMA, supported by the Federal Government, to work with community and industry in landscapes that had agriculture as a primary land use. Community interest and contributions in the forum are integrating opportunities for funding and training.

Support was provided to community groups in accessing philanthropic and corporate funding and support via the Landcare Corporate Partnerships Coordinator. This state-wide position, funded by the Victorian Government and hosted by the Goulburn Broken CMA, encouraged strategic planning and delivered an increase of volunteerism of more than 1,700 people and leveraged an additional \$99,000 direct to groups and networks across the state.

Community knowledge about the possibilities around carbon farming has been assisted through the Goulburn Broken CMA's Regional Landcare Facilitator (funded by the Australian Government). Using sustainable farming practices as a guiding principle, this position has delivered information, funding and support to allow community groups and networks to implement local and regional priorities.

This year has seen the first year of the Victorian Government's 68 Facilitators Initiative which has led to the creation of seven part-time positions in Landcare networks across the Catchment. Through service delivery in the sustainable farming area an additional 1.3 full time equivalent positions have been provided to Landcare to support their activities.

Community-based natural resource management groups received \$517,800 of support from the Victorian Landcare Program, funding five full time equivalent facilitators, and have leveraged more than \$1.4 million delivering support to 91 groups, six Landcare networks and five Conservation Management Networks.

The Goulburn Broken Local Government Biodiversity Reference Group celebrated its fifth anniversary in August 2011. The Goulburn Broken CMA was instrumental in working with Moira Shire Council to establish the Group. In 2011-12 the Group, which is led by local government, enjoyed strong and constructive participation from seven councils in the Catchment, the Department of Sustainability and Environment North East Regional Services, VicRoads and Goulburn-Murray Water. The Group has delivered several successful projects and its current project, 'Biolinks—a natural connection', is a broader application of its philosophy and efforts.

Sustainable Irrigation

The Sustainable Irrigation Program Advisory Group held its inaugural meeting in April 2012. The Group is making appropriate links between the community, strategy and implementation, providing feedback on Sustainable Irrigation Program priorities to reflect potential budget implications, providing input to the implementation of the Farm Water Program and identifying synergies between the Goulburn Broken CMA and the irrigation modernisation programs. Alignment with local government within the Shepparton Irrigation Region was strengthened by direct representation on the Group and Goulburn-Murray Water's water services committees.

Long-term strategy implementation progress

The Goulburn Broken CMA's collaborative agreements and strategies for engaging stakeholders reflect the diversity of natural resource management.

All program sub-strategies include a communication and community engagement action plan aligned to the Goulburn Broken CMA's overarching Communication and Marketing Strategy 2010-11.

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

Catchment condition

Government and regional communities' objectives are clearly aligned:

- for every dollar invested by government, regional communities (including landholders) contribute more than one dollar, despite the continuing climatic challenges
- the Goulburn Broken regional community has a reputation for delivering onground changes to improve its natural resources, which reflects the strength of relationships between its many and varied individuals and organisations
- community based natural resource management groups and networks involve more than 3,300 people and 8,320 hours of volunteer time in natural resource management activities every year (these figures are from just the 52 per cent of groups and networks that responded to a survey in 2010-11)
- 40 per cent of the Goulburn Broken CMA's Municipal Catchment Coordinator position is funded by the three municipalities in the Shepparton Irrigation Region. These municipalities also contribute 17 per cent of funding for the Public Salinity Works operation and maintenance costs and in some circumstances fund road structures on Community Surface Drains

Uniform regulatory backing has been developed across municipalities in the Shepparton Irrigation Region with uniform planning regulations and new irrigation development guidelines.

Following the 2010, 2011 and 2012 floods, discussions between the Goulburn Broken CMA and local government authorities have strengthened the partnership approach to flood response and a flood damage report has been prepared.

The Goulburn Broken CMA has been represented in steering committees and consultation sessions during development of local government authorities' strategies looking at environmental management and adapting and transitioning to less water. In addition, the Goulburn Broken

CMA has been involved in the development of the Hume Region Growth Plan, expected to be completed in mid 2013. The Plan aims to identify opportunities for encouraging and accommodating future growth and managing change that will occur during the next 30 years.

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

What's next?

Engagement with stakeholders will continue during the review of the Regional Catchment Strategy.

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

The following actions from the Goulburn Broken CMA's Communication and Marketing Strategy 2010-2011 are priorities for 2012-13:

- review and update the Strategy
- enhance the branding and marketing of the Goulburn Broken CMA to clearly distinguish it from Goulburn-Murray Water and Goulburn Valley Water; and
- complete the upgrade of the Goulburn Broken CMA website both in design and security of hosting.

Liaison with government funders will continue to ensure:

- local community priorities are considered in programs such as Caring for our Country Business phase two; and
- the impact of potential gaps in funding for regional priorities are minimised.

Community-based natural resource management will involve:

- development of a Goulburn Broken CMA Community and Landcare Support Plan;
- delivery of baseline facilitation training to the new 68 facilitators across the state;
- continuing to provide the catchment community with up to date information on the developing Carbon Farming Initiative and Clean Energy Future;
- continuing to develop relationships with community natural resource management groups; and
- delivering Victorian Landcare Program community grants.

Case study

Traditional ecological mapping through wetland protection in the Strathbogie Ranges

By Gaye Sutherland

The Taungurung Weeds of National Significance (WoNS) project is a joint program between Taungurung Clans Aboriginal Corporation and the Goulburn Broken CMA, supported by the Australian Government's Caring for our Country, for the control of WoNS in high priority wetlands, and the capture and exchange of Traditional Ecological Knowledge across Taungurung country. Within the Strathbogie Ranges the innovative project is building cross-cultural relationships with Taungurung and local landholders through local Landcare facilitators. The project, while protecting rare wetlands, is also facilitating the sharing of cultural information held by landholders for generations. The project has given Taungurung people an instrument to create a cultural map of their Traditional lands as utilised by their ancestors.

The project builds on the strength of existing relationships that Landcare facilitators have with local landholders, introducing the project supervisor as a Taungurung person and highlighting the benefits and objectives of the project. This approach, combined with effective delivery of weed control on individual properties has fostered cross-cultural relationships and resulted in a willingness for landholders to share long held knowledge they have about Traditional Owners use of the land. This has included sharing artefacts and other cultural sites they may have on their property and the sharing of stories passed down through generations, with some landholders being descendants of the first Europeans to settle the area.

For Taungurung people, the collection and recording of Traditional Ecological Knowledge is an essential step in gathering information about natural phenomena and the use of the landscape by their ancestors: knowledge that has diminished in this region due to loss and removal of Taungurung people from Traditional lands, and other social factors that have broken down Traditional ways of knowledge exchange.

Planning and responding (including research and development)

Compiled by Casey Damen, Chris Norman, Kate Brunt 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	2012	Certainty of rating	Trend
2011-12 performance	Corporate Plan KPIs related to planning and responding (see page 47) 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 78), including an explanation of the decision focus and ratings.

ii Ratings for 1990 have been determined using our understanding in 2012 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 Catchment community has continually adapted its approach to managing the Catchment's natural resources under changing conditions and new ideas for more than two decades. The major steps in this evolution have been:

- a single-threat focus (salinity) in the late 1980s
- integrated catchment management during the 1990s
- outcomes based on 'ecosystem services' in the early 2000s
- understanding and enhancing resilience of the Catchment's people and environment as an interconnected system currently.

The first comprehensive, community-led natural resource management strategies in Australia were prepared 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.

During the 1990s, pioneering approaches to strategy and planning in emerging fields, especially water quality and native vegetation management, became part of an integrated approach.

The Catchment has been the focus of international studies on ecosystem services and resilience thinking since the early 2000s. The review of the Goulburn Broken Regional Catchment Strategy, to be finalised in late 2012, will emphasise resilience of the Catchment's 'social-ecological systems'.

Government investment

- included as part of investment in 'Governance' (page 35).

Major strategic references

- refer to Regional Catchment Strategy and sub-strategy structure diagram on page 23

Regional Catchment Strategy

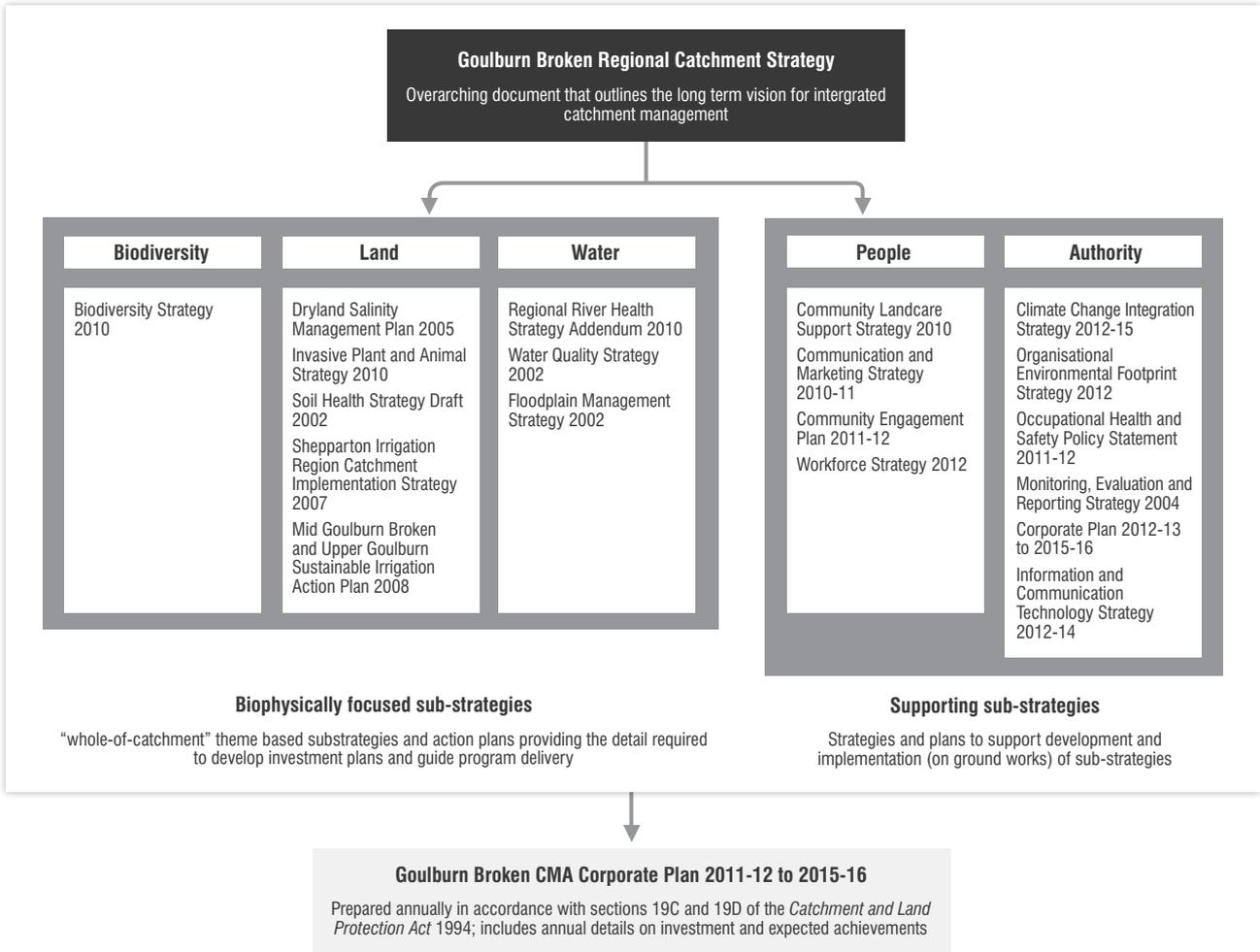
The Goulburn Broken Regional Catchment Strategy, a requirement of the *Catchment and Land Protection Act 1994*, was first developed in 1997 and revised in 2003. A further revision is expected by late 2012. The Regional Catchment Strategy provides high-level and integrated strategic direction for natural resource management.

The Goulburn Broken CMA also uses theme-based sub-strategies to provide direction, especially for investing in on ground action. The diagram on page 23 demonstrates the relationship between the Regional Catchment Strategy and sub-strategies.

Corporate Plan

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

Regional Catchment Strategy and sub-strategies structure



Climate change

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

The Goulburn Broken CMA statement on Climate Change is:

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

The Goulburn Broken CMA is implementing this statement via its Climate Change Integration Strategy 2012-15, which aims to:

- integrate climate change into the Goulburn Broken CMA's programs
- improve understanding of climate change
- pool and attract resources
- build catchment resilience into sequestration activities
- support community mitigation
- minimise Goulburn Broken CMA's footprint.

Research and development, evaluation and adaptation

While government funding agencies require project reports on short-term performance and impacts on long-term progress, the lack of a standardised approach in catchment management reporting means that requirements change regularly and often differ between and within agencies. Against this backdrop, the Goulburn Broken CMA has held critical evaluation processes constant, such as monitoring against benchmarks, allowing an understanding of long-term progress (including impact on Catchment condition) to be gained.

The Goulburn Broken CMA follows a systematic process of reviewing and updating plans and strategies as set out in the Monitoring, Evaluation and Reporting Strategy, 2004. 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. See www.gbcma.vic.gov.au for a record of how and when sub-strategies have been evaluated and adapted.

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 114) 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 trade-offs 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 helped drive many regional and national research and development projects over several years.

The research and development strategy for groundwater and salinity management in the Shepparton Irrigation Region has been implemented in partnership for more than two decades by Goulburn-Murray Water, the Department of Primary Industry’s research arms and the Goulburn Broken

CMA, with integration of additional resources from the Department of Sustainability and Environment, the National Water Commission, Northern Victorian Irrigation Renewal Project, irrigation industry service providers and users, and others. This partnership approach is pivotal in enabling the region to adapt quickly and to change, with the focus of research on improving how farmers can irrigate more efficiently and sustainably.

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.

Investment patterns and maturity of approachesⁱ

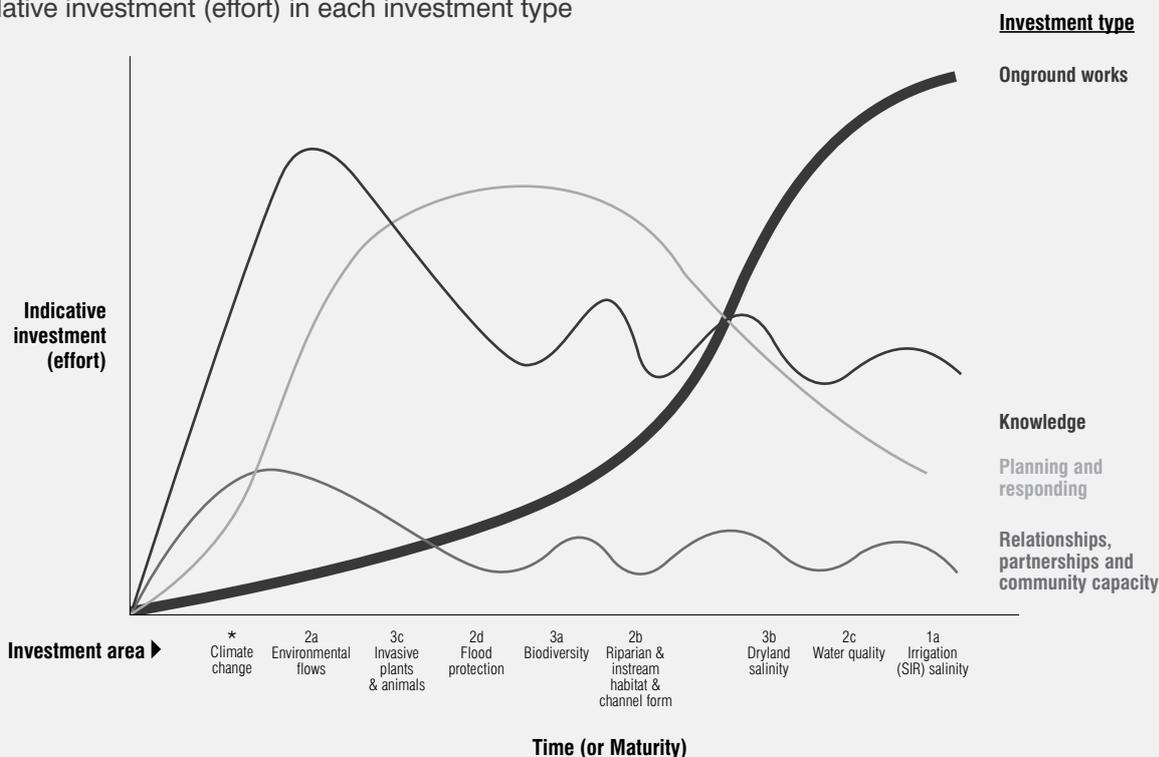
The stylised investment patterns shown in this graph show the Goulburn Broken CMA is at different stages of maturity of implementing approaches in its eight environmental investment areas.

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

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 dictates the levels of effort 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 (effort) in each investment type



Shows relative maturity for each major Goulburn Broken CMA environmental investment area

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

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

2011-12 performance

The following table highlights some of the progress against high-level integrating documents that form the basis of the Goulburn Broken CMA's planning and response. Further details are reported in individual investment area sections. (See www.gbcma.vic.gov.au for a more complete record of how and when sub-strategies have been evaluated and adapted.)

Summary of plan development and implementation in 2011-12

Plan or strategy	Progress	Further details
Corporate Plan	Corporate Plan key performance indicators were satisfied appropriately.	Key performance indicator progress report page 47.
Regional Catchment Strategy (last updated 2003)	Most actions have progressed subject to funding availability. A revised Regional Catchment Strategy, being developed with extensive consultation, will be finalised in late 2012.	Achievements report (completed 2009); summary available at www.gbcma.vic.gov.au . Progress in revising the Regional Catchment Strategy also available at WeConnect.gbcma.vic.gov.au .
Shepparton Irrigation Region Catchment Implementation Strategy (last updated 2007)	Implementation of the Strategy's 30 year salinity actions are on track (farm works ahead, public infrastructure behind giving overall on-target rating). An updated summary is being developed to reflect changes since the 2007 review (declining funding, Northern Victorian Irrigation Renewal Project and an increasingly variable climate). This is to be finalised before an additional review in 2013 subject to funding. The Strategy is constantly adapting in response to new information and the political climate.	page 80 www.gbcma.vic.gov.au .
Goulburn Broken CMA Climate Change Integration Strategy 2012-15	The Strategy was finalised early in 2012 and implementation is underway The Goulburn Broken CMA: <ul style="list-style-type: none"> - is an active partner of the Goulburn Broken Greenhouse Alliance, which attracts funds to help local government adapt to climate change - is influencing and implementing climate change policies such as the Australian Government's Carbon Farming Initiative and Clean Energy Future and local government adaptation strategies - is contributing to climate change research through Monash University and CSIRO - remains a member of a national carbon working group. (Evidence for integrating climate change needs is also reported in investment area reports from page 80.)	Various investment area reports within this Annual Report, especially pages 23, 86, 87, 96, 97, 99, 101, 103, 106 and 111.
Goulburn Broken CMA Monitoring, Evaluation and Reporting Strategy 2004	Actions are 90 per cent completed. The Strategy is being reviewed during finalisation of the review of the completed Goulburn Broken Regional Catchment Strategy (expected to be late 2012).	See 'Knowledge inventory' and 'RCS and sub-strategy evaluation and adaptation record' at www.gbcma.vic.gov.au .
Goulburn Broken CMA Information and Communication Technology Strategy 2012-14	Internal strategy to guide development and delivery of information and communication technology services. Close out of the previous strategy's outstanding priority projects was completed including upgrades to the wide area network and document management system. Development of the Strategy for 2012-14 is nearing completion with outputs from recently completed security audits and service reviews being key drivers in the strategy formation.	
Biodiversity Strategy for the Goulburn Broken Catchment 2010-15	The Strategy was released in July 2010. An 18-month review found that 75 per cent of actions are either underway or ongoing.	See section on investment area 3a – Biodiversity page 100
River Health Strategy Addendum 2010	The Addendum is being implemented according to schedule. The Strategy will be updated in 2013.	See investment area 2 – River health page 85
Goulburn Broken Invasive Plants and Animals Strategy	Since the Goulburn Broken Invasive Plants and Animals Strategy was released in April 2011, all new on ground projects clearly align to the Strategy's program goals. Prevention and eradication of new incursions remains the highest priority and additional effort is being invested into coordinating community projects that target established species ensuring high levels of stakeholder participation	www.gbcma.vic.gov.au and page 111
Communication and Marketing Strategy 2010-11	This Strategy was finalised in April 2010. It is an internal strategy to guide internal and external communication and marketing activities. A Goulburn Broken CMA Engagement and Communication Action Plan 2011-12 was developed to provide more specific guidance around community engagement expectations and approaches.	Page 17.

Long-term strategy implementation progress

Refer to 'Background' on page 22 and 'Long-term scorecard' (that rates progress against strategies under investment areas) on page 16.

Catchment condition

For more than two decades, comprehensive strategies have been developed and implemented for many issues including salinity, water quality, biodiversity, integrated catchment management, floodplain protection and river health, with evaluation and adaptation being critical parts of the planning cycle since 1990 (see 'Evaluation and adaptation record' at www.gbcma.vic.gov.au).

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

There is wide anecdotal recognition of the Catchment 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 review of the Goulburn Broken Regional Catchment Strategy, which was scheduled to be completed by 2008, will be finalised in late 2012. The impact of this deferral is minimised by maintaining up-to-date sub-strategies so that the foundations of natural resource management in the Goulburn Broken remain current.

What's next?

See also planning and responding sections in other investment areas.

Development of the revised Goulburn Broken Regional Catchment Strategy 2012-18 will be significant, reflecting:

- the Victorian Government's policy directions, including its responses to its review of the 2010-11 flood warnings, 2011 Inquiry into Flood Mitigation Infrastructure in Victoria, 2009 Victorian Bushfires Royal Commission and the Hume Strategy for Sustainable Communities 2010-2020
- prevailing climatic conditions
- other issues identified in sub-strategy reviews
- resilience thinking and a planning approach based on social-ecological systems; with support of internationally renowned academics (Goulburn Broken CMA is at the forefront of regional thinking on resilience and is seeking answers to questions such as: where and when must we accept change, what are the thresholds and how close are we to tipping points?).

Implementation of the revised Regional Catchment Strategy is expected to begin in the second half of 2012-13, subject to funding. The key objectives of the Strategy are expected to be; embed resilience, adapt to water policy reform, land use change, climate variability and increased farm production and strengthen partnerships.

Rehabilitating priority waterways following the flood events of 2010, 2011 and 2012 is a high priority. This includes documenting and understanding how past investment affected the extent and severity of flood damage. The Goulburn Broken CMA was allocated \$50,000 in 2011 for flood recovery by the Australian Government and \$1.66 million by the Victorian Government for works. The Victorian Government is expected to provide more than \$0.7 million for flood recovery in 2012-13.

In 2012-13, more Goulburn Broken CMA led studies will further understanding of flooding characteristics of key regional towns and inform possible mitigation strategies (subject to funding). The Goulburn Broken CMA has presented twice to the Parliament of Victoria Environment and Natural Resources Committee's Inquiry into flood mitigation infrastructure in Victoria. The outcomes of this inquiry will affect the Goulburn Broken CMAs' future role. The Goulburn Broken CMA is working with Department of Sustainability and Environment to respond to recommendations in relation to terms of reference, the adequacy of flood prediction and modelling contained in the review of the 2010-11 flood warnings and response.

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

The Goulburn Broken CMA will continue to provide input into development and implementation of the Murray-Darling Basin Authority's Basin Plan. The priority in the next 12 months will be on identifying and investigating works and measures that can improve the efficient use of environmental water in the Catchment.

The focus of business improvement in 2012-13 will be based on outcomes of the Organisational Performance Review undertaken in October 2011. The priority projects arising from this review are:

- ensure the Corporate Plan incorporates all organisational strategies and functions so that it can be used as a central reference for monitoring progress and achievement of organisational goals.
- clarify the process by which staff can raise issues and have them resolved.
- develop a revised workforce strategy that identifies future workforce needs and capabilities that need to be developed.
- develop a structured approach to the management and improvement of critical business and support processes.

Environmental footprint

Compiled by Annie Squires

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

Decision focus ⁱ	Examples of evidence used to inform decisions	1990 ⁱⁱ	Certainty of rating	2012	Certainty of rating	Trend
2011-12 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 2012 and 2014)	n.a.		On target	High	● ⁱⁱⁱ
Organisational condition ^{iv}	Energy consumption Paper consumption Management systems	Very poor	Very low	Poor	Low	↑

ⁱ See Appendix 1 for notes on the analytical framework (page 78), 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 2012 of what the situation was like in 1990. Ratings are about the condition of the natural resource management organisations (with respect to environmental footprint) rather than the condition of the Catchment.

Background

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

With support from management and staff, the Goulburn Broken CMA promotes environmentally responsible and sustainable practices.

All Goulburn Broken CMA environmental footprint initiatives and activities are guided by its Footprint Policy and Footprint Strategy and Action Plan 2012-14, which were both revised in 2011. Reporting is guided by the Victorian Government's Financial Reporting Directions (FRD) 24C.

2011-12 performance

Following the update of the Strategy and Action Plan, a working group was convened to guide implementation. The internal program is promoted as Reducing our Footprint.

A staff educational activity on waste management resulted in significant reductions in waste generated and recycled. Unlike previous years, the March 2012 audit provided a better indication of waste levels, measuring by weight rather than volume. The change in method makes it difficult to compare 2010-11 and 2011-12 results, although recycling rate improvements were strongly indicated, from 51 per cent (measured using a standard municipal conversion of volume-to-weight) to 75 per cent (measuring weight directly).

Environmental considerations relating to vehicle choices, fuel efficiency and greenhouse gas emissions were incorporated into the revised Vehicle Policy.

A staff energy assessment kit was developed to promote understanding of where energy is used and how its use can be reduced. The kit was also used to audit energy use of office equipment.

See also comments in the office based environmental impacts reporting table on page 28.

Government investment, \$000

2009-10	2010-11	2011-12	2012-13 ⁱ	Trend
0	18	20	25	●

ⁱ Forecast is based on funding advice at August 2012.

Major strategic references

- Goulburn Broken CMA Organisational Environmental Footprint Policy 2011
- Goulburn Broken CMA Organisational Environmental Footprint Strategy and Action Plan 2012-14
- Energy Audits of Goulburn Broken CMA 2008
- ResourceSmart
- Financial Report Direction (FRD) 24C
- Goulburn Broken CMA Climate Change Integration Strategy

Strategy implementation progress

The revised Goulburn Broken CMA Organisational Footprint Strategy and Action Plan 2012-14 was formally reviewed and endorsed by Sustainability Victoria in January 2012.

In 2011-12, initiatives arising from the Action Plan focused on communicating the Reducing our Footprint program, waste management practices, data collection and reporting and incorporating environmental considerations into our vehicle fleet policies. A review of energy use is underway to determine potential projects for implementation during 2012-13.

A workshop with Goulburn Broken CMA field staff and Sustainability Victoria used the Life Cycle Assessment Tool, promoting understanding of the environmental impacts of field-based activities. Activities identified as worthy of investigation in 2012-13 were procurement, transport, use and end-of-life, while many factors, such as manufacturing, were considered as beyond the control and influence of the Goulburn Broken CMA.

Organisational condition

This is the second year of reporting office-based environmental impacts against FRD 24C, enabling us to formalise benchmarks and better understand progress, including comparisons with other organisations.

The following table highlights the 2011-12 performance and achievements.

Office-based environmental impacts reportingⁱ

Category	2006-07	2010-11	2011-12	2011-12 actions and comments
Greenhouse gas emissions by category (t CO₂-e)				
Associated with:				Emissions from energy use and waste to landfill decreased while vehicle fleet emissions remained relatively stable.
energy use	179	173	166	An increase in air travel contributed to an overall increase in emissions for 2011-12.
vehicle fleet	392	437	436	
air travel	not avail.	33	62	Emissions have reduced from 12.3 to 11.2 t CO ₂ -e per person.
waste to landfill	8.68	6.51	0.6	See 'Transport' below for vehicle emissions.
Offsets purchased	-	-	-	
Energy use				
Total (MJ)	532,548	513,290	494,637	Total office energy use continues to reduce.
Green Power	0%	0%	0%	Projects to reduce this further and Green power options are being considered for 2012-13.
Per FTE (MJ/FTE)	14,688	11,773	10,413	
Per unit of building space (MJ/m ²)	272	262	253	
Waste management				
Total units of waste by destination (kg/year)				
Council landfill	8,680	6,510	500	There have very likely been significant improvements in office-based waste management practices during the year. The improvement in composting is certain because both years involved direct measure of weight. The recycling rate has improved to 75 per cent.
Comingled recycling	4,530	6,470	956	
Compost	-	260	453	
Printer/copier toner	131	76	76	
Units of waste per FTE by destination (kg/FTE/year)				
Council landfill	239.40	149.31	10.54	
Comingled recycling	124.94	148.39	20.14	
Compost	-	5.96	9.54	
Printer/copier toner	3.60	1.75	1.60	
Recycling rate (% of total waste)	35%	51%	75%	
Paper use				
Total copy paper (reams)	514	631	804	Paper use increased significantly during 2011-12 due to requirements of the Farm Water program (printing of contracts, landholder information and reports).
Copy paper per FTE (reams/FTE)	14.2	14.5	16.9	
Recycled content in copy paper purchased (%)				Most of the paper purchased is now made from 100 per cent recycled paper.
0-50% recycled content	not avail.	16%	4%	
50-75% recycled content	not avail.	82%	6%	
75-100% recycled content	not avail.	2%	90%	
Water consumptionⁱⁱ				
Total (metered; kilolitres)	not avail.	57	72	Water consumption data is only available for the Yea office.
Total per FTE (metered; kilolitres/FTE)	not avail.	7.45	9.49	
Total per unit of office area (metered; kilolitres/m ²)	not avail.	0.23	0.30	
Transportⁱⁱⁱ				
Total energy consumption by vehicles (GJ)	5,342	5,980	5,908	Vehicle fleet emissions for previous years have been recalculated to include Scope 3 (production) emissions in line with current practice and to provide accurate comparison with 2011-12 figures.
Total vehicle travel associated with entity operations (km)	not avail.	1,831,018	1,962,543	
Greenhouse gas emissions from vehicle fleet per 1,000km travelled (t CO ₂ -e)	not avail.	0.239	0.222	Vehicle emissions per 1,000km travelled have reduced for both the passenger and operational (4WD) vehicles.
Total distance travelled by air (km)	not avail.	90,766	187,205	
Procurement				
Suppliers and contractors environmental practices.				Informal sustainable purchasing options have been undertaken where practical (e.g. office supplies). Formal sustainable purchasing procedures are being developed.

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

ⁱⁱ Water consumption data only available for Yea office. The Shepparton, Tatura and Benalla office meters are shared with other tenants.

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

What's next?

The Goulburn Broken CMA aims to further reduce its environmental footprint by targeting areas that contribute significantly to our emissions such as energy use and transport. Procedures are being developed and implemented for purchasing, energy use, waste management, water use, travel, and paper use. Opportunities in field operations will be further investigated in the areas of procurement, transport, use and end of life.

Human resources

(including occupational health and safety)

Compiled by Kate Pendergast, Annie Squires, 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	2012	Certainty of rating	Trend
2011-12 performance	Outputs (against targets set as a result of funds received)	n.a.		On target	High	n.a.
Long-term strategy implementation progress	Outputs	n.a.		On target	Medium	● ^{iv}
Catchment condition ⁱⁱ	Workforce data Management systems	Satisfactory	Medium	Good	Medium	↑

i See Appendix 1 for notes on the analytical framework (page 78), 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 2012 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, progressive and professional staff body.

The Goulburn Broken CMA fosters a workplace culture where professionalism and expertise is valued, supported by a commitment to communication and a continuous improvement approach including training and development. The Goulburn Broken CMA also offers flexible workplace arrangements to meet contemporary needs of a broad staff demographic.

Since its formation in 1997, the Goulburn Broken CMA has operated as a lean, flexible and agile natural resource management public sector organisation harnessing efficiencies through internal expertise and the delivery capacity of partners.

The Goulburn CMA generally employs staff with strategic contract and project management expertise, although staff with specific skills in implementing river health works projects have been retained.

The staffing model emphasises a matching of staff to prevailing conditions, especially opportunities, requiring a core staff with transferrable capability and the will to adapt.

The Goulburn Broken CMA is well positioned in terms of workforce capability, culture and business acumen to meet future needs.

A healthy and safe organisation

The Goulburn Broken CMA emphasises Occupational Health and Safety (OHS) across all aspects of the workplace, including office, field and in contractor operations. The Goulburn Broken CMA required all staff to participate in OHS management and operations.

An OHS field sites audit in 2011-12 identified a high level of compliance. Policies and procedures continued to be reviewed in consultation with the workforce ensuring that OHS operations 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 OHS management and operations.

Government investment, \$000ⁱ

2009-10	2010-11	2011-12	2012-13 ⁱⁱ	Trend
4,402	6,436	5,909	5,579	●

i Excludes Board and support committees.

ii Forecast based on estimated increases of 3 per cent cost and 8 per cent staff numbers on 2011-12 figures.

Major strategic references

- Goulburn Broken Corporate Plan 2011-12 to 2015-16
- *Public Administration Act 2004* (employment and conduct principles)
- Public Sector Industrial Relations Policy Manual 2010
- Goulburn Broken CMA Human Resources Policies and Procedures
- *Occupational Health and Safety Act 2004*
- The State of the Public Sector in Victoria 2008-09
- People Matters 2012
- *Equal Opportunity Act 1995*

2011-12 performance

Enterprise Agreement negotiations are being conducted in context of new funding model obligations. Opportunities for increased efficiencies were pursued via a collaborative approach with the Victorian CMA Human Resources Forum, resulting in sharing the cost of implementing of the human resource management information system - ConnX. The approach to workforce management was reviewed. In the last quarter, attention was turned to managing budget cut impacts.

Recruiting highlights

As many more irrigators entered the implementation phase of the Farm Water Program, three officers were appointed in roles of administrative support, specialist communications, and graduate project support.

The appointment to reception of an incumbent who had previously completed a traineeship with the Goulburn Broken CMA was a positive outcome. Staff wanting to return to the Goulburn Broken CMA affirms our success as an employer of choice.

The opportunity to share expertise was supported by our partner, the Department of Primary Industries, with the secondment of two staff members to work within the environmental reserve projects and the development of the Regional Catchment Strategy.

Leave management

The Board revised the requirement of a maximum leave balance to be no greater than 30 days as at 30th June each year. In 2011, 15 per cent of staff exceeded this target and required a leave management plan. In 2012 that was reduced to eight per cent.

Strategy review

After recommendations of the natural resource management Business Excellence organisational assessment, a review of the Workforce Strategy was undertaken. The strategy identifies and seeks to build on the strength of the culture and employer of choice activities of the Goulburn Broken CMA. A draft Workforce Strategy has been prepared, building on critical aspects of the Goulburn Broken CMA's culture. It includes skills and knowledge needs of the organisation and efficiency and effectiveness measures.

Annual workshop

Sixty staff attended the annual workshop in November 2011. Under the theme 'Working Together' the workshop helped grow people's understanding of each other's roles in the catchment and highlighted the potential for cross program collaboration in project delivery. This was intended to equip staff to take on 2012 as a united team.

The program included a motivational speaker, an introduction to emotional intelligence and presentations from staff on the work and lessons learnt.

Personal development, training and contributions

Land and Biodiversity Manager, Steve Wilson, completed a Masters of Environmental Management majoring in natural resource management.

Land Health Coordinator, Rhiannon Apted, was awarded the Australian Society of Soil Science Incorporated (Riverina branch) Prize for the 2011 academic year.

Sustainable Irrigation Program Manager, Carl Walters and Regional Catchment Strategy Manager, Helen Murdoch, along with staff from supporting partner organisations and community members showcased the Goulburn Murray Irrigation District as an example of world's best practice at the International Commission on Irrigation and Drainage Conference in Tehran, Iran.

Regional Landcare Facilitator, Charlie Sexton, was awarded the A & K Hill Green Agriculture Innovation Award for his work in Pasture Cropping.

Karen Brisbane was awarded the Heather Mitchell Memorial Fellowship for her work in Landcare and will use the Fellowship to travel to Thailand to help develop Landcare by creating whole farm plans that address sustainable agriculture challenges such as salinity.

A centralised database was setup to record and follow-up staff training, in particular, OHS-related training competencies. A training needs analysis was conducted with a range of staff to guide internal and external training.

Workplace health

The Goulburn Broken CMA continued to offer flu vaccinations, and supported staff to participate in community activities and the annual staff workshop, with a focus on health and wellbeing. In April, 16 staff enjoyed the experience of dragon boat racing combining the raising of money for the Goulburn Valley Community Fund with a fun and energetic work out. More than one-third of Goulburn Broken CMA staff were part of teams that took on the Greater Shepparton City Council's Pedometer Challenge.

Occupational health and safety (OHS)

An internal review of the Goulburn Broken CMA's OHS procedures was conducted in November 2011 under the assumption that the Victorian Government would proceed with implementation of the National Work Health and Safety Laws and proposed Regulations. However, it now seems that the Victorian Government will not support the national legislation.

The Goulburn Broken CMA's OHS Procedures currently meet best practice as defined by AS/NZS 4801.

All OHS Committee positions were filled when nominations were called for in February.

All scheduled workplace inspections of offices and depots were completed. External work site inspections were also conducted at field work sites. Only seven of the intended twelve field worksite inspections could be completed because of delays caused by the extremely wet weather in February and March. Scheduled emergency evacuation drills were completed at the Shepparton and Yea offices and the annual review of the OHS Policy Statement was completed by the end of December 2011 for Board endorsement.

System improvements

A register of training records was made available to all staff through the portal and training evaluation was improved via online evaluation surveys.

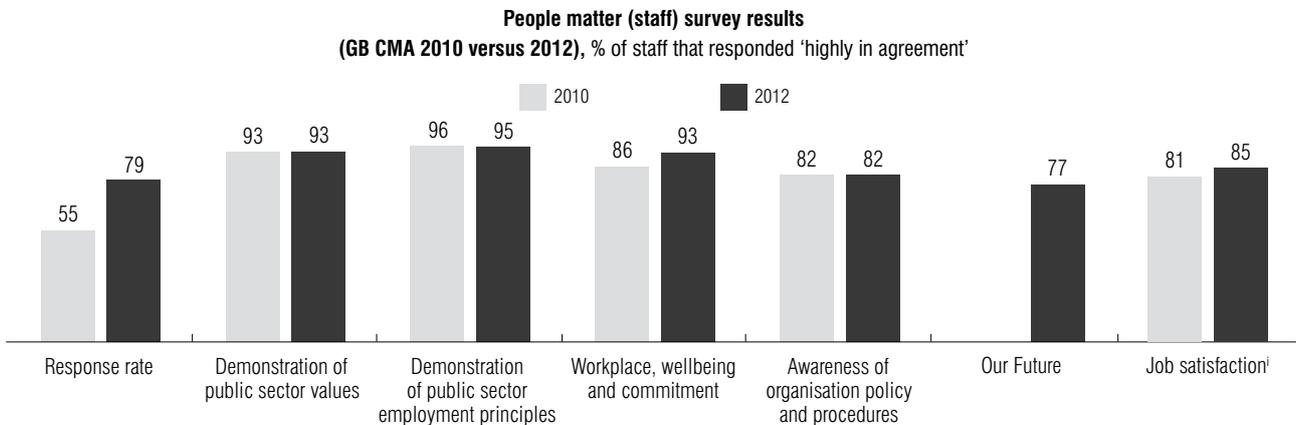
OHS Audits found a high degree of compliance, identifying best practice for work practices and opportunities for improvement.

OHS Key Performance Indicator Measures and 2011-12 Performance

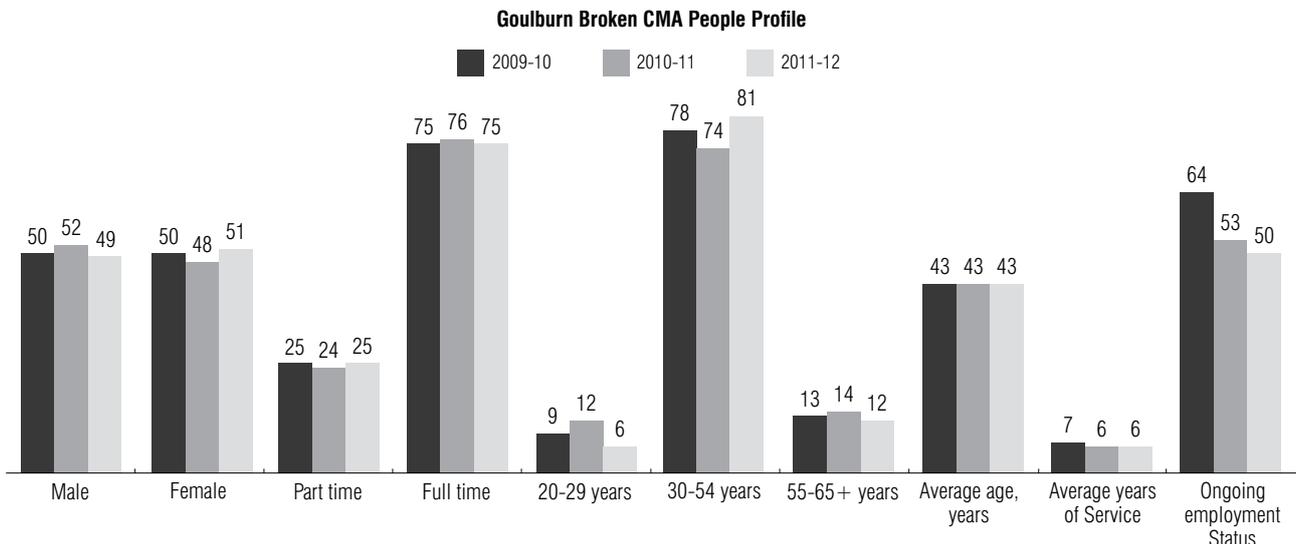
Outcome	No.	Indicator	Target 2011-12	Measure
Ensuring a working OHS Management System	1	Current and relevant OHS Policy and procedures	Goulburn Broken CMA OHS Policy Statement	Achieved
			Annual Review of Goulburn Broken CMA OHS Procedures	Achieved
	2	Standard Safe Work Procedure Development	100% of new Safe Work Procedures developed within one month for new mechanically operated equipment or work processes, and communicated to staff once the procedure has been ratified by the OHS Committee.	Achieved
			Develop a library of standard Safe Work Method Statement documents for staff to utilise for site specific works and tailor to suit local conditions and tasks	Achieved
			Central recording of actual Safe Work Method Statement and Safe Work Procedure documents when managing worksite and staff safety. Documents submitted for recording within one week of field projects commencing.	Achieved
	3	Workplace inspections conducted	Not applicable	Not achieved. 75% of inspections conducted. Resources diverted to respond to March floods
	4	Workplace inspections actions completed	100% of actions arising from workplace inspections completed.	Achieved
5	Evacuation and emergency procedures	100% of emergency drills conducted as per annual schedule.	Achieved	
Proactive OHS reporting	6	Incident reporting	100% of Incident Reports received are acted on by OHS Manager.	Achieved
	7	Hazard reporting	100% of Hazard Reports received are acted on by Workgroup Supervisor.	Achieved
	8	Lost time injuries	Report monthly to the Goulburn Broken CMA Board.	Achieved

Occupational health and safety statistics summary

	2010-11	2011-12
Total incidents, no.	11	15
Days lost	1	0
Hazards reported, no.	2	1
Lost time injury frequency rate	11.8	0
Occupational health and safety committee meetings (excluding tool box meetings), no.	6	5



i. this measure is a collation of all elements in the survey relating to Satisfaction as distinct from the result for the single element of "Overall Job Satisfaction".



General workforce statistics

	Goulburn Broken CMA						Comments
	2009-10		2010-11		2011-12		
	no.	%	no.	%	no.	%	
Gender and employment typeⁱ							
Male	28	50	33	52	34	49	Goulburn Broken CMA continues to offer flexible work practices and has maintained the proportion of part time positions. Third of new positions recruited to where part time.
Female	28	50	31	48	36	51	
Part time	14	25	15	24	18	25	
Full time	42	75	49	76	52	75	
Part time male	1	2	2	3	3	4	
Part time female	13	23	13	21	15	21	
Full time male	28	50	31	48	31	44	
Full time female	14	25	18	28	21	30	
Total employees	56	100	64	100	70	100	
			0				
Total full time equivalents	49.7		58.7		62.9		
Employment statusⁱ							
Fixed term	20	36	30	47	35	50	Employment status impacted by fixed term recruitment to Farm Water Program and RCS.
Ongoing	36	64	34	53	35	50	
Employment category							
Executive Officers	2	0	2	3	2	3	
Senior Managers	7	9	8	12	7	10	
Admin Officers	33	46	49	72	49	70	
Field staff	14	32	9	13	12	17	
Age profile (years, by tally)ⁱ							
20-24	0		0	0	1	1	With 55% of the workforce aged below 44, the Goulburn Broken CMA is well positioned. 33% of new staff recruited during 2011-12 were aged beneath 30 with an additional third of turnover for the year being in the >55 age profile.
25-29	5	9	8	12	4	6	
30-44	26	46	31	46	35	48	
45-54	18	32	19	28	24	33	
55-59	4	7	7	10	6	8	
60-64	2	4	2	3	2	3	
65+	1	2	1	1	1	1	
Average age, years	43		43		43		
Years of serviceⁱⁱ							
12 months or less	4	7	11	17	9	13	58% of Goulburn Broken CMA staff have served for longer than the Australian industry average of 3.4 years assisting knowledge retention.
1-3 years	10	18	14	22	18	26	
3-5 years	15	27	8	13	10	14	
5+ years	27	48	31	48	33	47	
Average length of service, years	7.2		6.5		6.4		
Salary distribution							
<\$40,000	9	16	5	8	0	0	Salaries are fiscally responsible, whilst being competitive with others in the water sector.
\$40,000 – 59,999	19	34	20	31	14	20	
\$60,000-79,999	15	25	23	36	33	47	
\$80,000+	13	23	16	25	23	33	
Average Salary	\$68,729		\$68,266		\$69,736		
Qualificationsⁱⁱⁱ							
Year 12 or less	13	22	12	19	11	16	Base level qualifications have been encouraged for administrative roles and where existing staff in a range of corporate roles have been able to obtain formal qualifications
Certificate	5	8	5	8	8	11	
Advanced Diploma/Diploma	5	8	6	9	7	10	
Degree	28	47	32	50	34	49	
Postgraduate Degree/Graduate Diploma	9	15	9	14	10	14	
Turnover (total)	4	7	4	6	3	4	It is forecast that planned turnover will increase in 2012-13. The lower turnover was an outcome of the increased recruitment of staff to support the Farm Water Program.
Turnover (ongoing staff only)	1	-	2	3	2	3	
Exit interviews completed	1	25	2	50	3	100	Exit interviews reinforced staff satisfaction with both work and employment conditions.
Absenteeism		1.7	-	1.9		1.3	High levels of staff engagement and workplace flexibility is reflected in low absenteeism
Training expenditure (% of salary budget)	\$103,000	2.3	\$124,911	2.3	\$141,972	1.6	

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 Includes all employees for 2011-12.

Long-term strategies implementation progress

All indicators from the 2012 People Matter Survey point to the maintenance of a stable and productive workplace.

Further consolidation and refinement of measures has been achieved in conjunction with the Audit Risk and Compliance Committee.

Goulburn Broken CMA staff continue to be extremely aware of, and satisfied with, OHS management, policies and procedures, with 100 per cent staff agreement and satisfaction reported for the four workplace health and safety elements included in of the 2012 People Matters Survey.

Catchment condition

Goulburn Broken CMA continued its excellent record in OHS, with only one lost-time injury resulting in a full recovery and return to work since reporting started in 2008.

In 2011-12, staff were successfully recruited to develop the Regional Catchment Strategy and implement the Commonwealth-funded Farm Water Program. Staff turnover was 4 per cent, consistent with the previous year's, which is beneath our target range of seven-10 per cent. One staff member resigned, one retired and one had a contract that concluded.

Staff satisfaction, which increased in 2012, is very pleasing. A comparison of results against the Victorian public sector and water sector was not possible at this time as final reports have not been released (see People Matters Survey results graph on page 31).

What's next?

Implementation of the Workforce Strategy 2012-15, including finalisation of a new Enterprise Agreement and implementing 'capability thinking', will be a key focus.

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 2011-12 is on the inside of the back cover.

Management Team and Program Manager profiles are listed on page 34.

Goulburn Broken CMA Management Team and Unit Managers

Corporate

Aaron Findlay, Dip Information and Technology – Information, Communications and Technology (ICT) Manager
Oversees information and communication technology services.

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

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

Chris Norman, BAppSc, Grad Dip (Rural Resource Management), Dip (Frontline Management), GAICD – Chief Executive Officer

Provides advice on strategic direction, policy and implementation at the direction of the Board. Responsible for overall programs, funding arrangements and day-to-day operations. Accountable Officer under the *Financial Management Act* and directly responsible to the Board for day-to-day operations.

Jason Head, BAcc – Assistant Business Manager

Provides support to the the Business Manager in the administration and reporting of all finance and accounting operations including payroll.

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, Cert IV Assessment and Workplace Training – 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.

Shannon Crawford – Cert III Business Administration, DipBus (HR) – 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, 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.

Business development

Casey Damen, BBus (HRM), BAppSc (Environmental Science and Chemistry), Cert IV Frontline Management, Graduate Certificate in River Health – Business Development Coordinator (higher duties within existing position from 1st December 2011).

Responsible for funding and investment processes and provides strategic advice to the CEO on monitoring, evaluation and reporting.

Helen Murdoch, BEnvSci – Regional Catchment Strategy Manager
Manages the review of the Regional Catchment Strategy.

Katie Warner, BAg (Hons), MPPM, DipBus (Frontline Management) – Business Development Manager

Responsible for funding and investment processes and provides strategic advice to the CEO on monitoring, evaluation and reporting and managing the update of the Regional Catchment Strategy.

Land and biodiversity

Carla Miles, BAppSc – Biodiversity Strategy Manager

Manages the development, integration and supports the implementation of the strategic planning and investment planning within the Land and Biodiversity Unit.

Jenny Wilson, PhD, BAppSc (Hons) Acting Biodiversity Strategy Manager (from 1 May 2012)

Manages the development, integration and supports the implementation of the strategic planning and investment planning within the Land and Biodiversity Unit.

Mark Cotter, BAgSc (Hons), DipProjMan't, GradCertAppSc (Maths) – Land Health Manager

Supports Land and Biodiversity Manager with policy advice and technical support and implements strategic land health projects in the dryland.

Steve Wilson, MEnvMan, BAppSc (Parks, Recreation and Heritage) – Land and Biodiversity Manager

Manages and coordinates biodiversity program, including investment and strategic planning, monitoring and reporting and integration of climate change responses.

Tony Kubeil, BSc – Manager Landcare and Communities

Supports Landcare groups in the region and coordinates 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 regions and provides strategic advice on managing stream flow to meet regional ecological and environmental flow targets.

Guy Tierney, BE (Civil) – Floodplain Manager

Manages the floodplain program and statutory planning activities across the Goulburn, Broken and part of the River Murray basins.

Mark Turner, BAppSc (Natural Resource Management), Graduate Certificate in River Health – River Health Implementation Manager

Oversees the river health implementation programs, leading a team of field staff.

Neville Atkinson – Indigenous Natural Resource Management Facilitator

Coordinates cultural heritage matters related to natural resource management across the Goulburn Broken Catchment, providing strategic direction and advice to the Goulburn Broken CMA and its partners including local government, the community and Traditional Owners.

Simon Casanelia, MEnvMan, BSocSc, GDipEnvMan – Strategic River Health Manager (Higher Duties from 28 May 2012)

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.

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, AssocDip (Civil), MIEAust – Sustainable Irrigation Program Manager

Provides executive liaison with the Shepparton Irrigation Region Implementation Committee to ensure works program targets are met in line with the Corporate Plan. Provides input to statewide Salt Disposal and Sustainable Irrigation Program working groups and water related issues.

Megan McFarlane, BAgSc (Hons), MNatRes, GAICD – Farm Water Program Manager

Leads the development, investment and planning processes and associated delivery of the Farm Water Program. Provides high level advice and guidance to the Chief Executive Officer, Farm Water Program Working Group and Program Advisory Committee, Business Manager and senior program managers on all aspects of the Farm Water Program.

Governance

Compiled by Stan Gibney and Jason Head

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

Decision focus ⁱ	Examples of evidence used to inform decisions	1990 ⁱⁱ	Certainty of rating	2012	Certainty of rating	Trend
2011-12 performance	Corporate Plan key performance indicators ⁱⁱⁱ Compliance ^{iv}	n.a.		On target	High	n.a.
Long-term strategy implementation progress	Corporate Plan key performance indicators ^v Compliance ^{iv}	n.a.		On target	Medium	● ^{vi}
Catchment condition	Efficiency ratios Management systems: - legislative and funding backing - policies and procedures - communities' capacity ^{vii}	n.a.	n.a.	Satisfactory	Medium	●

i See Appendix 1 for notes on the analytical framework (page 78), including an explanation of the decision focus and ratings.

ii Ratings for 1990 have been determined using our understanding in 2012 of the situation in 1990.

iii See Corporate Plan Key performance areas, indicators, targets and progress table page 47.

iv See performance of statutory responsibilities as a Victorian State Authority and Employer page 40.

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

vi Assumed to parallel government funding trend.

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

Background

This section includes:

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

Description of Governance investment area

This 'enabling' program exists to ensure that the Goulburn Broken CMA continues to fulfil its statutory and corporate functions; maintains a high level of governance, transparency and accountability in delivering program commitments agreed with investors and ensures that:

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

Government and other investment, \$000

2009-10	2010-11	2011-12	2012-13 ⁱ	Trend
2,025	1,918	1,516	1,113	↓

i 50% of 2011-12 funding paid in June 2012.

Major references

- Goulburn Broken Catchment Management Authority Corporate Plan 2011-12.
- Governance Guidelines for Department of Sustainability and Environment Portfolio Statutory Authority Board.

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

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

The Goulburn Broken CMA is a mature organisation with an optimum corporate structure managing a revenue base of \$39.6million in 2011-12. The key challenges in the short term continue to be:

- maintaining an optimum structure given the confirmed funding restrictions for 2012-13 and the differing requirements of investors for reporting information; and
- The ever increasing challenge to minimise the cost of corporate administration to deliver more dollars for on ground works.

Other general priorities include:

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

Specific priorities to be addressed include:

Finance and reporting

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

Business development

- seek new investors willing to make major investments in natural resource management.
- finalise a suite of efficiency and effectiveness measures to underpin the Goulburn Broken CMA's investment in programs which can be incorporated into the monitoring and evaluation process.
- oversee implementation of the Business Improvement Plan
- Embed WeConnect as an online strategy development process enhancing community input

Human Resources

- finalise a Workforce Strategy for 2012-15 to direct the key strategic workforce priorities to improve the current employer of choice objectives and enable a skilled and capable workforce to deliver the objectives of the Goulburn Broken CMA.
- develop a capability framework to inform and direct the organisation and employees skill requirements and training needs to align with and enable the Goulburn Broken CMA's agreed business goals for 2012-13.
- finalise an Enterprise Bargaining Agreement that supports the workforce objectives and is consistent with government requirements.

Information and communication technology

- finalise the Information and Communication Technology Strategy to deliver agreed 2012-14 initiatives with particular emphasis on 2012-13.

Marketing and communications

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

Occupational health and safety

- monitor compliance activities against agreed Key Performance Indicators
- ensure that the Goulburn Broken CMA meets its obligations under current legislation and monitor requirements of any proposed new legislation.

Goulburn Broken CMA's legislative and funding context

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

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

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

Goulburn Broken CMA's funding of \$39.6 million was sourced from regional, State and Commonwealth Government sources in 2011-12. 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 are in line with State, Murray-Darling Basin and National strategies.

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

Under Section 12 of the *Catchment and Land Protection Act, 1994*:

- 1 The Authority has the following functions in respect of the region for which it has been appointed:
 - a To prepare a Regional Catchment Strategy for the region and to coordinate and monitor its implementation.
 - b To prepare special area plans for areas in the region and to coordinate and monitor its implementation.
 - c To promote the cooperation of persons and bodies involved in the management of land and water resources in the region in preparing and implementing the Strategy and special area plans.
 - d To advise the Minister, and, if requested by any other Minister, that other Minister
 - i on regional priorities for activities by land resource allocations to bodies involved in the management of land and water resources in the region;
 - ii on guidelines for integrated management of land and water resources in the region;
 - iii on matters relating to catchment management and land protection;
 - iv on the condition of land and water resources in the region.
 - e To promote community awareness and understanding of the importance of land and water resources, their sustainable use, conservation and rehabilitation.
 - f To make recommendations to the Minister about the funding of the implementation of the Regional Catchment Strategy and any special area plan.
 - g To make recommendations to the Minister and the Secretary about actions to be taken on Crown land managed by the Secretary to prevent land degradation.
 - h To advise the Minister and provide information to the Minister on any matter referred to it by the Minister.
 - i To carry out any other functions conferred on the Authority by or under this Act or any other Act.
- 2 The Goulburn Broken CMA 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 The Goulburn Broken CMA has the duties conferred on it by or under this or any other Act.

Goulburn Broken CMA Board

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

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

Goulburn Broken CMA's corporate governance practices

Sound and ethical corporate governance practices underpin the Goulburn Broken CMA's overall performance including compliance with what is required and expected of it. This is codified in the Goulburn Broken CMA's Financial Code of Practice which all employees are obligated to comply with.

Benchmarking

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

Board Committees

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

Audit, Risk and Compliance Committee

(Directors Curtis, Chapman and Court met the criteria of 'independent' member from 1 July 2011 to 30 September 2011. Directors Fox and Chapman meet the criteria of 'independent member' from 1 October 2011 to 30 June 2012)

- | | |
|------------------------------|-------------------------------|
| 1 July – 30 September 2011 | 1 October 2011 – 30 June 2012 |
| • Eileen Curtis (Chairwoman) | • John Craven (Chairman) |
| • Murray Chapman | • Ailsa Fox |
| • Peter Ryan | • Murray Chapman |
| • Terry Court | • Peter Ryan |
| • John Pettigrew | • Ross Runnalls |

Remuneration Committee

- | | |
|-----------------------------|--|
| 1 July – 30 September 2011 | 1 October 2011 – 30 June 2012 |
| • Frank Whitford (Chairman) | • Alexander 'Sandy' MacKenzie (Chairman) |
| • Peter Ryan | • Mike Dalmau |
| • Lyn Gunter | • Peter Ryan |
| • Russell Pell | • Catherine 'Rien' Silverstein |
| | • Russell Pell |

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 on page 22.

Risk management

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

Risk Management Attestation

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



Peter F Ryan
Chairman

Board directors and officers

for the financial year ended 30 June 2012



Board directors: (L-R) Back: Murray Chapman, Mike Dalmau, Russell Pell, John Craven, Chris Norman (CEO), Alexander 'Sandy' MacKenzie, Ross Runnalls, Front: Peter Ryan (Chairman), Catherine 'Rien' Silverstein and Ailsa Fox

Peter Ryan - Chairman (Cosgrove South)

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

Ailsa Fox (Merton)

Ailsa is a primary producer of many years with strong involvement in the Victorian Farmers Federation and is currently a partner in a farm at Merton focusing on beef cattle, wool and prime lamb production. Ailsa is a Director of AgStewardship Australia, Primesafe Victoria, Rural Skills Australia and the North Central Rural Financial Counselling Service. Ailsa believes an opportunity in natural resource management is to work with larger landholders to achieve better outcomes.

Alexander 'Sandy' MacKenzie (Avenel)

Sandy has a Masters in Rural Science (UNE) and is currently the Landcare Coordinator for the Burnt Creek Landcare Group. Sandy holds positions with the Victorian Landcare Council and Australian Landcare International. Sandy is also a community assessor for the Australian Government Natural Resource Management programs Caring for our Country and Carbon Farming Initiative. Sandy has experience in governance, natural resource management and community education/engagement and was the Founding Principal of Orange Agricultural College (Charles Sturt University).

Catherine 'Rien' Silverstein (Orrvale)

Rien is a primary producer and self-employed as a partner of Silver Orchards and is a past President of Victorian Farmers Federation-Horticulture and a Coordinator and founder of Goulburn Valley Women in Horticulture. Rien is a member of the Goulburn-Murray Water Shepparton Water Services Committee. Rien is also a current member of Fruit Growers Victoria, a member of the Victorian Farmers Federation and Australian Women in Agriculture. Rien has an apple and pear orchard in Orrvale and believes managing water with the changing climatic conditions is currently the greatest challenge to farming.

John Craven (Middle Park)

John is a registered veterinary surgeon with a PhD in microbiology and is currently employed as a Director of Terip Solutions Pty Ltd. He has considerable experience in research and research methods and was formerly a research manager at the Department of Primary Industries and the Dairy Research and Development Corporation. Until recently John owned a beef cattle property in Terip Terip which was originally settled by his family in the 1880's. He has considerable experience in on-farm conservation activities and sees the need for communities to value the environment sufficiently to contribute time, energy and money to improve conservation outcomes.

Mike Dalmau (Acheron)

Mike lives on a lifestyle rural property and has operated a number of successful tourism and hospitality businesses, centered on Lake Eildon, for over 30 years. Mike is a houseboat broker and works as a Mediator for the Department of Justice Dispute Settlement Centre of Victoria. Mike holds positions on the Central Ranges Local Learning Employment Network; Alexandra District Ambulance Support Inc; Police Community Consultative Committee Safe and Caring Community Project; Lake Eildon Land & On Water Management Plan Reference Group; Eildon

Major Events; and UGFM community radio station. Mike served on the Goulburn Broken CMA Upper Goulburn Implementation Committee for 10 years. Mike also served as a Councillor of the Murrindindi Shire Council for nine years, including a term as Mayor, and during this time chaired two Council committees and represented Council at several state-wide forums. Of importance to Mike was the 12 months he worked as a Bushfire Case Manager assisting small businesses in their journey of recovery following Black Saturday.

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 for water and on-farm 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.

Ross Runnalls (Benalla)

Ross is a rural landholder, former Regional Manager with VicForests, and now is a self-employed forestry consultant. Ross has vast experience in natural resource management, including commercial use of native forest and fire management. Ross lives in Benalla on a small rural holding and is a member of the local Whitegate Fire Brigade. Ross considers improving the environmental condition of agricultural land whilst maximising production as the greatest challenge currently facing natural resource management.

Russell Pell (Wyuna)

Russell is a member of the Murray-Darling Basin Authority's Community Committee. He also chairs the Modernisation Group for Central Goulburn for the Northern Victorian Irrigation Renewal Project. Russell's previous positions include eight years as a member of the Shepparton Irrigation Region Implementation Committee (including four years as Chairman), 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.

Board members attendance record at meetings

July 2011 - September 2011			
Board member	Board meetings (3 held)	Audit, Risk and Compliance Committee (2 held)	Remuneration Committee (1 held)
Eileen Curtis	3	2	n/a
Frank Whitford	2	n/a	1
John Pettigrew (Deputy Chairman)	3	2	n/a
Lyn Gunter	2	n/a	1
Murray Chapman	2	2	1 (proxy)
Peter Ryan (Acting Chairman)	3	2	1
Russell Pell	1	n/a	0
Terry Court	2	1	n/a

Board members attendance record at meetings

October 2011 - June 2012			
Board member	Board meetings (8 held)	Audit, Risk and Compliance Committee (5 held)	Remuneration Committee (3 held)
Ailsa Fox	8	5	n/a
John Craven	7	5	n/a
Mike Dalmau	8	n/a	3
Murray Chapman (Deputy Chairman)	8	4	1 (guest)
Peter Ryan (Chairman)	8	4	3
Rien Silverstein	6	n/a	2
Ross Runnalls	8	5	n/a
Russell Pell	8	n/a	3
Sandy MacKenzie	8	n/a	3

Compliance

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

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

Act or policy	Board's major tasks	2011-12 issues and status
Statutory Authority		
<i>Catchment and Land Protection Act 1994</i>	Prepare, coordinate, monitor and review of Regional Catchment Strategy.	Review of Regional Catchment Strategy currently underway and on schedule.
	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."	2010-11 Annual Report submitted on time and 2011-12 on schedule.
	Corporate Plan to be submitted to Minister under the <i>CALP Act</i> by 30 April annually.	Submitted to Minister by 30 April 2012.
	Members declare new interests at each (monthly) Board meeting and document it in Pecuniary Interests Register. Members must submit a primary return and an annual return.	Declarations of Pecuniary Interests have been duly completed by all relevant directors and officers of the Goulburn Broken CMA and are available for inspection.
<i>Water Act 1989</i>	Corporate Plan available for inspection.	Copy is available for inspection during business hours.
	Review funds at each (monthly) Board meeting. Policy for investment as per the <i>Trustee Act 1958</i> .	During the year, Goulburn Broken CMA continued to invest funds with Treasury Corporation of Victoria at call and on term deposits at competitive rates in line with Department of Treasury and Finance'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. Finance Leases are classified as borrowings due to their accounting treatment.
	Meeting Procedures of Authorities.	Minutes are available through application under Freedom of Information. Goulburn Broken CMA has adopted Governance Guidelines for Statutory Authority Board Members, Department of Sustainability and Environment 2005 and Code of Conduct for Public Sector Employees adopted.
	Waterway management responsibilities.	Goulburn Broken CMA was established as a body corporate under the <i>Catchment and Land Protection Act, 1994</i> and then established as an Authority under the <i>Water Act, 1989</i> with delegated waterway management, floodplain management and drainage functions under Part 10 of the <i>Water Act, 1989</i> .
<i>Public Administration Act 2004</i>	Ensure operations of Board comply with Part 5.	The State Services Authority has developed a range of guidelines to be adopted by public sector organisations. Guidelines cover employment principles, ethics, merit and equity. The Goulburn Broken CMA has reviewed processes to ensure compliance. A recruitment kit has been developed and reviews undertaken of equal opportunity, harassment and bullying policies.
<i>Environmental Protection and Biodiversity Conservation Act 1999</i>	Provide for the protection of the environment and promote ecologically sustainable development through the conservation and ecologically sustainable use of natural resources and promote the conservation of biodiversity.	All works have a process which assesses the works against this Act. The Goulburn Broken CMA and its partners have complied with all requirements.
<i>Freedom of Information Act 1982</i>	Report requests for access to documents in Annual Report. Report requests at each (monthly) Board meeting. The Act gives persons the right to request certain types of information (which are not exempt documents) held by the Authority. The Authority's Freedom of Information Officer is authorised to make decisions about access to documents under the Freedom of Information Act. The officer has 45 days from the date of receiving a valid request to accede to or reject the applicant's request. There are two costs associated with making a Freedom of Information request being an application fee of \$25.10 which is non-refundable and an access cost which covers the cost to Authority for providing the information.	The <i>Freedom of Information Act 1982</i> allows members of the public a right of access to documents held by the Goulburn Broken CMA. Freedom of Information requests are made in writing describing the documents requested and including payment of the \$25.10 application fee. Further charges may be payable. Freedom of Information fees and charges are not subject to GST. Requests to the Goulburn Broken CMA should be sent to Freedom of Information Officer, PO Box 1752, Shepparton, Vic 3632. The telephone contact number is (03) 5820 1100; enquiries can be emailed to reception@gbcma.vic.gov.au . Ten Freedom of Information Requests were received in the year. Eight applications were responded to as 'no documents' existed, whilst the other two were granted 'part access'. There were no internal reviews or appeals to the Victorian Civil and Administrative Tribunal during the year.
<i>Whistleblowers Protection Act 2001</i>	Report actions in Annual Report. Report actions at each (monthly) Board meeting.	No issues reported. Disclosures of improper conduct by the Goulburn Broken CMA or its employees may be made to Mark Turner (Protected Disclosure Coordinator) or alternatively to the Ombudsman. (See Appendix 7 for policy, page 120.)

Act or policy	Board's major tasks	2011-12 issues and status
Statutory Authority		
<i>Statutory Referral and Advice (Planning and Environment Act 1987, Subdivision Act, 1988, Building Regulations 2004, Water Act 1989, Mineral Resources (Sustainable Development) Act, 1990)</i>	<p>Goulburn Broken CMA has delegated floodplain management functions and is the floodplain management authority under the <i>Planning and Environment Act, Subdivisions Act</i> and Building Regulations where various types of application for development are referred. Furthermore, functions require direct advice to be provided to any body or person under the <i>Water Act</i>.</p> <p>Goulburn Broken CMA is a referral authority for applications from DPI (Mineral Resource Act, 1990) for work plans on floodplain areas.</p> <p>Goulburn Broken CMA is referral authority from RWA under section 67 licences for dams on waterways and provide permits/licences to landowners to carry out works or activities on waterways.</p>	The Goulburn Broken CMA processed 920 referral and advice application relating to floodplain management and 112 applications for works on waterways for 2011-12.
	Board is advised of application refusals at each (monthly) meeting.	Decisions are made in accordance with the Victoria Flood Strategy, the Goulburn Broken Regional Floodplain Management Strategy, the Victorian Planning Provisions Practice Notes and Authority Policy, all of which have largely been incorporated into respective municipal planning schemes as performance based criteria.
	Local government can request advice but are not required to implement it.	Advice has been provided where appropriate.
<i>Privacy Act 2000</i>	Ensure details of individuals are protected.	Goulburn Broken CMA has developed a Privacy Policy (in accordance with the Act) on how personal information is stored and under what circumstances it can be accessed or released to third parties.
<i>Flora and Fauna Guarantee Act 1988</i>	Conserve the Catchment's communities of flora and fauna and manage potentially threatening processes and educate the community in the conservation of flora and fauna.	The Goulburn Broken CMA continues to support the implementation of action statements and recovery plans for threatened flora and fauna by the Department of Sustainability and Environment.
<i>Environmental Protection Act 1970</i>	<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 CMAs 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>Participated in the development of the Regional Goulburn Broken Waterway Incident Agreement.</p> <p>Staff attended training with respect to emergency and incident response. (Australian inter-service incident management system.)</p>
<i>Forest Act 1958</i>	Liaise with Department of Sustainability and Environment as required.	For waterways in areas managed by Department of Sustainability and Environment under the Act, the Goulburn Broken CMA complied with elements of the code which deals with access to waterways and crossings.
<i>Financial Management Act 1994</i>	Undertake review of its annual operations and advise the Minister regarding compliance with Financial Management Compliance Framework.	Information listed under FRD 22b is available under the <i>Freedom of Information Act 1982</i> .
<i>Aboriginal Heritage Act 2006</i>	Ensure the use of cultural heritage management plans for certain development plans or activities and interact with registered Aboriginal parties to evaluate management plans, advise on permit applications and enter into cultural heritage agreements.	The Goulburn Broken CMA applies diligence with regard to the requirements of the Act and encourages best practice in partner organisations through its cultural heritage support program. The Goulburn Broken CMA is committed to policies, programs and strategies aimed at delivering culturally appropriate services to all Victorians. Current practices of inclusive and thorough public consultation ensure that all persons who have an interest in investigations are kept informed and have the opportunity to provide input into Goulburn Broken CMA deliberations.
<i>Building Act 1993</i>	Comply with standards for the construction and maintenance of buildings.	Goulburn Broken CMA complied with building and maintenance provisions of this Act.
National Competition Policy	Ensure fair competition	Competitive neutrality seeks to enable fair competition between government and private sector businesses. Any advantages or disadvantages that government businesses may experience as a result of government ownership should be neutralised. The Goulburn Broken CMA continues to apply this principle in its business undertakings.
<i>Country Fire Authority Act 1958</i>	Work with other related organisations to assist in the control, prevention and suppression of fires within the Catchment.	Goulburn Broken CMA has policies relating to waterway operations that comply with the Act and reduce fire risk. Fire suppression equipment has been purchased.
Victorian Industry Participation Policy	The Victorian Industry Participation Policy is a Victorian Government initiative designed to promote greater access for small to medium enterprises to work with major projects.	The allocations to the Farm Water Program have been advised.

Act or policy	Board's major tasks	2011-12 issues and status
Employer		
Fair Work Act (Registered Organisations) Act 2009	Comply with the Award system which provides a minimum set of terms and conditions for Goulburn Broken CMA employees.	Goulburn Broken CMA's policies have been evaluated for alignment against the Act and are available to staff on its portal (intranet). The process for the renewal of the current agreement – Goulburn Broken CMA Enterprise Agreement 2009-2012 is underway. This was delayed pending finalisation of the State's Wage Policy.
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, 51 per cent are female and 49 per cent male (see page 31).
Long Service Leave Act 1992 Victorian Long Service Leave Regulations 2005	Long service leave liability is updated to the Board in a monthly financial report.	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	Report Occupational Health and Safety (OHS) issues at each (monthly) Board meeting and in Annual Report. Quarterly Report of measurable OHS targets to the Audit Risk and compliance Committee.	Goulburn Broken CMA continues to review and update its OHS Policy Statement and supporting OHS procedures. All staff and Contractors are inducted in the procedures that reflect their work function. OHS Procedures are in place and made available for contractors when applicable. Employee Health and Safety Representatives and Designated Work Groups are part of the consultative processes under sections 35 and 36 of the OHS Act 2004. Policies and procedures are available to staff on the portal (intranet). An OHS Report against agreed KPIs is provided to Audit, Risk and Compliance Committee quarterly.
Victorian Government Risk Management Framework	The Victorian Government Risk Management Framework provides for a minimum risk management standard across Public Sector entities. Attestation by accountable officer in annual report which ensures that requirement is built into corporate planning and reporting processes.	The attestation that the Goulburn Broken CMA has risk management processes in place, made by the Chairman of the Goulburn Broken CMA, is consistent with the Australian/New Zealand Risk Management Standard.
Gifts, benefits and hospitality policy framework	The Victorian Government Framework requiring employees to record gifts, benefits and hospitalities offered to them in their capacity with Goulburn Broken CMA.	The Goulburn Broken CMA has a comprehensive policy in relation to this issue and all staff are required to comply and record any benefits on the Register.

Details of compliance with Whistleblowers Protection Act 2001

Refer to Appendix 7, page 120, for policy.

Available information

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

Other information

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

Headline theme reports

This section includes data prescribed in the Department of Sustainability and Environment 'Annual condition and management reporting guideline for Catchment Management Authorities – 2011-12, which refers to the template to be followed in this Annual Report to fulfil statutory requirements of section 19B of the *Catchment and Land Protection Act 1994*.

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

DSE headline theme	Goulburn Broken CMA investment area	Details page
Biodiversity	Biodiversity	100
Inland aquatic ecosystems	River and wetland health	85
Marine & Coastal	Not applicable	n.a.
Land health	Land health	106
	SIR Salinity	80
	Invasive plants and animals	111
Community capacity	Collaborations and communities	17
	Planning and responding	22
Environmental stewardship	River and wetland health	85
	Biodiversity	100
None applicable	Human resources	29
None applicable	Environmental footprint	27
None applicable	Floodplain management	97

Biodiversity

Management

Implementation of the Goulburn Broken CMA's Biodiversity Strategy 2010-15 is well underway, with the first annual review in 2011-12 showing that 52 of the 64 actions are in progress or have been completed. Most Land and Biodiversity Program staff work plans align with the Strategy's actions and agency partners are also helping to implement the Strategy's actions.

Partners delivered several key projects, including:

- Plains Woodland Tender: fencing and revegetation (Department of Primary Industries); Tender and stewardship payments (Department of Sustainability and Environment)
- Permanent protection of high value sites (Trust for Nature)
- Threatened species protection (Department of Sustainability and Environment)
- Priority projects (community groups through an expression of interest process)
- Community education through community-based NRM groups.

Significant levels of onground works were achieved, including fencing of 888 hectares of remnant vegetation. The Plains Woodlands project (703 hectares), and the Plains Wetland Tender (136 hectares) made major contributions.

Condition

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

While acknowledging uncertainty, we appear to be making some progress towards vegetation extent targets (see graph on page 105). However, future rises in extent need to be much greater if we are to reach the 2030 target.

Major threats to the condition of biodiversity include the increased likelihood and frequency of fire due to climate change and large-scale and frequent fuel reduction burning.

The measures used to determine progress towards targets include:

- hectares of high-quality remnants of native vegetation protected
- amount of natural regeneration through land-use change, such as stock removal
- hectares of revegetation and remnant protection through stewardship programs, such as Plains Wetland Tender, and the Woodlands Project.

The condition of aquatic (including wetland) biodiversity is described in 'Investment area 2a – Environmental flows and water supply' (page 88) and 'Investment area 2b – Riparian and instream habitat and channel form' (page 90).

Inland aquatic ecosystems

Environmental flows

Management

A total of 599 gigalitres of Environmental Water was delivered in 2011-12 to maintain minimum flows in the lower Goulburn River and lower Broken Creek and provide a spring fresh in the lower Goulburn River, and to ensure success of waterbird breeding events in the Barmah-Millewa Forest. The environmental water was delivered in accordance with the Victorian Environmental Water Holder processes and with the assistance and cooperation of partners.

Condition

The Goulburn River experienced a number of natural freshes, bankfull and overbank flows and the Broken Creek experienced a greater than one in 100 year flood event. The floodwater provided many ecological benefits including the exchange of nutrients, sediments and carbon between the floodplain and river channel; improving riparian vegetation health; and stimulating native fish movement and breeding. However, the Broken Creek flood was accompanied by a blackwater event with low dissolved oxygen and some fish deaths.

Many wetlands across the Catchment, including many low lying wetlands in Barmah-Millewa Forest, were inundated in 2010 from above average and unseasonal rainfalls and continue to hold water. Although welcome after a long drought, prolonged inundation can temporarily or permanently alter wetland vegetation communities by favouring species adapted to extended inundation, reducing the diversity and structure of habitat.

Riparian and instream habitat and channel form

Management

Partnerships with the community and government agencies delivered a range of natural resource and community based activities including fencing, revegetation, invasive plant and animal control, resnagging, monitoring and employment to protect riparian and frontage lands, protection and enhance instream diversity and maintain the channel.

A major focus of works to improve instream habitat was investigated and commissioned on the Goulburn River under the Large Scale River Restoration Project 'Goulburn – Icon River'. Habitat conditions were analysed in large reaches of the Goulburn, including those with habitat deficiency. Woody debris was then installed in a way which represented areas of good habitat. This project was integrated into the Environmental Water Program and Threatened Species Monitoring Initiatives.

Monitoring projects included:

- 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
- assessing fish populations of the Lower Goulburn River
- monitoring of Macquarie Perch populations in the Sevens, Hughes, Holland and Seven creeks

A new project initiated in 2011-12 is an assessment of the performance of Passive Integrated Transponder Tag readers in the Broken Creek.

Condition

The impact of 2011-12 flood events was assessed and will continue to be monitored. Sites aligned with approved funding will continue to be rehabilitated.

Increased effort is being placed on areas of Crown water frontages through State investment and support.

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

Water quality (nutrients) in waterways

Management

The focus of water quality management continued to concentrate on the impact of floods on instream water quality. Research and investigations continued, including real-time monitoring and assessment of floods on instream water quality.

Condition

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

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

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

Land Health

Shepparton Irrigation Region Salinity

Management

Implementation of the Shepparton Irrigation Region Catchment Implementation Strategy continues to progress despite the region enduring widely varying climatic conditions and changing funding priorities. The emphasis again was to link implementation of the Strategy with various modernisation programs, especially the Northern Victorian Irrigation Renewal Project and the Farm Water Program, to optimise opportunities presented by changes to delivery systems. This is principally based around the Whole Farm Plan Program although connection to salinity infrastructure has become even more critical.

The Farm Water Program continued to roll out in 2011-12. Almost 60 per cent of the 148 Round 1 Farm Water Program projects have been completed. Round 1 projects saved 18 gigalitres of water with nine gigalitres transferred to the Australian and State government for environmental purposes. All Round 1 projects are expected to be finished by March 2013. An additional 237 projects have been funded through Round 2 of the program which received funding from the Victorian On-Farm State Priority Project (\$43 million) and the Australian Government's On Farm Irrigation Efficiency Program (\$21 million). Total Round 2 water savings are expected to be 32 gigalitres with at least half transferred to the Australian Government or the Goulburn Broken CMA for environmental purposes. By June 2012 about 500 megalitres of water from Round 2 projects was transferred to the environmental water holders.

Landholder participation in the Whole Farm Plan Incentive scheme was maintained and extended to maximise the benefits of the remodelled regional irrigation delivery system.

Condition

Although risks of land salinisation and waterlogging have increased due to wetter conditions, these risks have generally declined since 1990 because of:

- government supported salinity management works, particularly in the early 1990s, including surface water management projects (that result in less water going through to the watertable) and groundwater pumping projects (that have the effect of lowering the watertable)
- complementary government-supported water quality and water savings works that have water-use efficiency and often, therefore, salinity benefits; for example, irrigation delivery infrastructure through the Foodbowl Modernisation project from 2008 means less water is able to go through to the watertable

Land Health (including dryland salinity)

Management

In 2011-12 the Land Health program invested in program activities that maximised community involvement and actively encouraging communities to develop solutions to their problems, all in an environment of shared learning. This has, and continues to be monitored and evaluated in partnership with expert providers.

Significant disruptions to normal works programs were caused by delivery partners undergoing loss of key staff and significantly reduced funding. This particularly had an impact on the delivery of grants. The Land Health soils project was successful in retaining key partnerships with highly skilled staff which allowed the project to exceed targets

The program promoted land manager behaviours that best demonstrated development of robust and adaptable systems, which are important for managing the impacts of climate change.

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

The review of bore trends in the Catchment and the modelling of upland hydrology processes and the effect of climate variability and land use change were completed in June 2012, for presentation to the Murray-Darling Basin Committee, to meet the obligations under the federal *Water Act, 2007*.

Condition

The Department of Primary Industry's Future Farming Systems Research reviewed the dryland salinity problem in 2012, as part of a response to the preceding wet years. They observed that bore rises in the upland area of the Goulburn Broken were around one metre and less. A rise of this amount is of little concern but given that it has occurred in such a short time it challenges our thinking about how responsive the bores are. This may be evidence of the water tables having established a different equilibrium state than what prevailed in the early 1970's.

Benchmarking land condition is needed to provide a better assessment of the challenge and progress.

Two years of above average summer rainfall have resulted in marked increases in bore levels in upland areas and the more muted response in the lower areas is entirely consistent with the time it takes groundwater to move through the system. The storm events have resulted in the failure of a large number of erosion control structures, particularly in the mid and southern parts of the Catchment. While funding is sought to assist in their repair, it is recognised that it is very important to build a stronger sense of responsibility in the community to manage potential erosion sites and prevent similar episodic failures.

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

Invasive Plants and Animals

Management

The Department of Primary Industries, Parks Victoria, Goulburn Broken CMA, community-based Natural Resource Management groups and landholders have all contributed to the delivery of onground outputs. Given seasonal factors such as breeding and growing times and associated optimum control timelines the Victorian Landcare Program is delivered over 18 months. In 2011-12, nine projects were funded under the Victorian Landcare Program to deliver invasive plants and animals onground works and these projects are on track to deliver in December 2012 as planned.

A range of pest management projects were delivered across the Catchment, targeting new and emerging weeds, established weeds and established pest animals. Projects continued to achieve high levels of voluntary compliance, but where necessary, effective enforcement operations were implemented.

More than 180 compliance notices were issued during the year, requesting landowners to undertake priority pest management works. Eleven Penalty Infringement Notices were issued for non-compliance with Direction Notices. Five landholders failed to comply with Land Management Notices and were subsequently prosecuted.

Condition

Since the 2009 Black Saturday bushfires, improved access to weed and pest animal infestations, coupled with targeted bushfire recovery funding has resulted in the implementation of many effective control programs. Community groups in the fire affected areas are again keen to include a compliance component in their program delivery and new projects will be developed for 2012-13.

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

While regional priorities for pest management have been identified, the Department of Primary Industry's capacity to deliver programs has declined in some areas.

Community capacity

Management

The Goulburn Broken CMA Communication and Engagement Plan 2011-12 heralded several new approaches and people influenced strategies and priorities in many and varied ways.

The current revision of the Regional Catchment Strategy recognises the critical role of people in making the Catchment resilient, and many opportunities for individual and other stakeholder contributions to the Strategy were created via one-one interviews, community forums, expert panels, workshops, community forums, and the Goulburn Broken CMA's first foray into social media.

The Sustainable Irrigation Program Advisory Group, two environmental water advisory groups, and a Land Health Forum were established.

Landcare networks and groups, conservation management networks, Traditional Owners, agency partners such as the Catchment's eight local governments continued to be heavily involved in development of priorities and program delivery.

Community education activities were often conducted in partnership with other agencies.

Condition

Government and regional communities' objectives are clearly aligned:

- for every dollar invested by government, regional communities (including landholders) contribute more than one dollar, despite the continuing climatic challenges.
- the Goulburn Broken Catchment community has a reputation for delivering on-ground changes to improve its natural resources, which reflects the strength of relationships between its many and varied individuals and organisations.
- community-based Natural Resource Management groups and networks involve more than 3,300 people and 8,320 hours of volunteer time in natural resource management activities every year (these figures are from just the 52 per cent of groups and networks that responded to a survey in 2010-11).
- based on community-based Natural Resource Management report cards, group health has been maintained over the past three years, suggesting that investment is being directed to the right areas to enable groups to contribute to the direction and improvement of Catchment health.

Following the 2010, 2011 and 2012 floods, discussions between the Goulburn Broken CMA and local government authorities have strengthened the partnership approach to flood response.

The Goulburn Broken CMA has been involved in the development of the Hume Region Growth Plan, expected to be completed in mid 2013. The purpose of the Plan is to identify opportunities for encouraging and accommodating future growth and managing the change that will occur over the next 30 years.

Environmental stewardship

Management

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

One of the best indicators of stewardship is the output 'binding management agreement' which the Goulburn Broken CMA defines as licences, Section 173 (of the *Planning and Environment Act 1987* and covenants. In 2011-12, 360 hectares or 94 per cent of a target of 384 hectares of binding management agreements were achieved.

Whole farm plans were completed for 363 properties (108 per cent of the target 335).

Condition

The method for measuring stewardship has not been thoroughly determined.

Corporate Plan key performance indicators

Performance area	Performance indicators	Targets	Progress 2011/12
Governance			
Board performance	Complete and submit an annual board performance assessment report, according to any Ministerial guidelines issued	By 31 August annually	Completed
	Participation by board members in training and development activities	All board members participate in training and development activities	Ongoing
Board charter	Maintain a board charter that as a minimum: <ul style="list-style-type: none"> includes a requirement for the regular review of the Board's effectiveness establishes appropriate board committees including an audit risk and compliance committee features a provision that the board will comply with Ministerial guidelines requires the board to monitor the CMA's financial, social and environmental performance 	A board charter with these features is reviewed by 31 August annually	Charter reviewed in March 2012 Continually updated on an as needs basis
Risk and financial management	Compliance with risk management plans for each program	All programs have risk management plans in place Nil non-compliances with risk management plan	Achieved
	Annual review of delegations, policies and procedures	Review all delegations policies and procedures by 30 June annually	Completed
Efficiency and organisational performance			
Expenditure versus budget	Variation of actual to budgeted expenditure for the CMA	Total actual expenditure is less than or equal to budgeted expenditure For each program, actual expenditure is within +/- 10 per cent of the budgeted expenditure	Programs outside the 10 per cent budgeted expenditure threshold have been delayed due to seasonal conditions and/ or operate over more than one financial year.
Grant management	Administration costs of grants are minimised	10 percent or less of grant funds is spent on administration	Eight per cent levy was applied
	Minimise time taken to determine grant applications	Grant applications are determined within one month of being received	Completed
Regulatory waterway/ water functions	Number of days to process works on waterways permits	95 per cent processed within 28 days	112 Applications were processed including site inspection within an average timeframe of 29 days and 67% within 28 days and 87 per cent within 60 days
	Number of days to process referrals for any works on or in relation to a dam	95 per cent processed within 28 days	112 applications were processed including site inspection within an average timeframe of 29 days and 67 per cent within 28 days and 87 per cent within 60 days
	Number of days to process referrals and advice from local government on flooding and controls on planning scheme amendments, and planning and building approvals and individuals	95 per cent processed within 28 days	920 applications were processed within an average of timeframe of eleven (11) days and 97 per cent were processed within 28 days
	Number of days to process referrals for Water Use Licences that don't meet the standard water-use conditions	95 per cent processed within 28 days	Nil referred

Performance area	Performance indicators	Targets	Progress 2011/12
Effectiveness and Environmental Outcomes			
Intergrated River Health Management	Revise Regional River Health Strategy to plan for waterways in relation to their economic, social and environmental values	Regional River Health Strategy revised every six years	Review of the Regional River Health Strategy has commenced and is expected to be completed on time by July 2013
	Develop and revise Seasonal Watering Proposals and Environmental Watering Plans to manage the environmental water reserve in accordance with objectives	Seasonal Watering Proposals approved for key streams and wetlands. Environmental Watering Plans prepared for streams and wetlands that receive environmental water	Seasonal Watering Proposals were developed for the lower Broken Creek, Goulburn River, Barmah Forest and Goulburn Broken Wetlands in May. Environmental Watering Plans have been prepared for five wetlands and a further five plans are in development
	Implement annual river health programs and activities to improve environmental values and health of water ecosystems	Seasonal Watering Proposals were developed for the lower Broken Creek, Goulburn River, Barmah Forest and Goulburn Broken Wetlands in May. Environmental Watering Plans have been prepared for five wetlands and a further five plans are in development	90 per cent of key annual river health targets and works programs achieved. CFOC implementation targets have been exceeded. All multi-year projects are on track
Regional Catchment Strategy (RCS) Implementation	Percentage of RCS annual actions implemented	All RCS annual actions implemented	Achieved RCS review due for completion in late 2012
Regional Native Vegetation Plan (RNVP) Implementation	Percentage of RNVP annual actions implemented	All RNVP annual actions implemented	Achieved
Invasive plant and animal management	Regional Invasive Plant and Animal Strategies incorporating related priorities in all land tenures in the region	Invasive Plant and Animal Strategies revised by 30 June every five years	First Invasive Plant and Animal Strategy 2010-2015 endorsed by Department of Primary Industries in October 2010. Next revision 2014-2015.
Regional and statutory planning	Provide advice on dryland salinity, irrigation management, soil erosion, or any other land management issue identified in the local Municipal Strategic Statement as the referral body	100 per cent of referral responses provided for each issue	Achieved
Salinity management	Implementation and periodic review of Regional Salinity Management Plans (RSMP) and Land and Water Management Plans (LWMP)	RSMP and LWMP completed RSMP and LWMP periodically reviewed RSMP and LWMP include annual actions to be implemented	Completed and being published
	Progress against annual action targets	All annual RSMP and LWMP actions and targets achieved	Achieved in accordance with budgets
	Develop regional salinity targets and corresponding works programs in accordance with the Murray Darling Basin Salinity Agreement (for applicable CMAs only)	All annual salinity targets and works programs achieved	Achieved
	Annual report on the allocation and update of salt disposal entitlements submitted to the responsible Minister	By 31 July annually or as otherwise requested by the responsible Minister	Completed in November 2011
Regional Landcare groups, networks and other community groups	Deliver the Regional Landcare Support Strategy, including coordination of Landcare at a regional scale	Evaluate and revise the strategy every five years	Strategy was reviewed in 2009 and will be superseded by the regional delivery of the Victorian Landcare Program Strategic Plan

Financial report

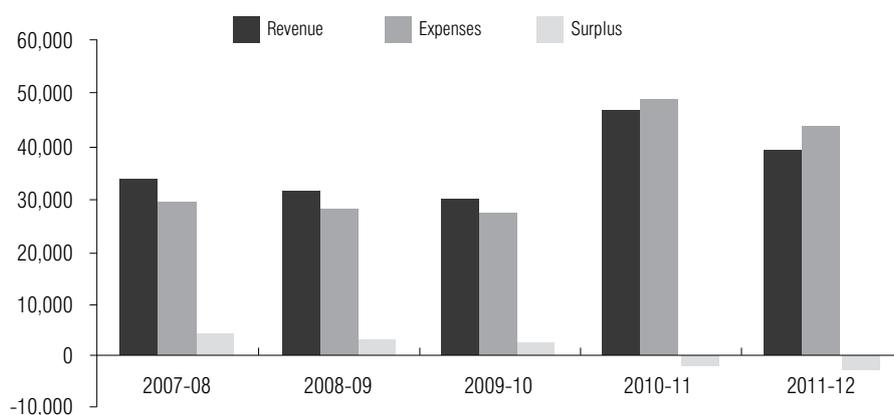
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Financial results summary: current plus past four years

	2007-08 \$000	2008-09 \$000	2009-10 \$000	2010-11 \$000	2011-12 \$000
Income and expenditure					
State Government	19,879	20,793	19,945	16,746	17,035
Australian Government	3,072	7,170	6,831	16,175	14,602
National Action Plan	8,568	1,095	-	-	-
Government contributions	31,838	29,387	26,776	32,921	31,637
Revenue from government entities	319	329	1,201	11,066	6,201
Other revenues	1,657	1,783	1,928	2,593	1,780
Total income	33,495	31,170	29,905	46,580	39,618
Expense					
Infrastructure asset write-off	-	-	-	133	-
Interest	7	7	2	28	15
Total expenses	29,196	27,981	27,240	48,686	42,328
NET RESULT	4,299	3,189	2,665	(2,106)	(2,710)
Balance sheet items					
Current assets					
Cash	11,393	10,434	19,074	21,683	34,936
Receivables	1,060	6,112	1,454	4,458	1,177
Inventories	-	-	-	-	234
Prepayments	60	47	16	22	35
Total current assets	12,513	16,593	20,544	26,163	36,382
Fixed assets	1,938	1,679	1,640	1,607	1,449
Total assets	14,451	18,272	22,184	27,770	37,831
Current liabilities					
Trade creditors	2,256	1,690	3,676	4,309	3,518
Unearned revenue	-	-	-	5,340	17,474
Borrowings	57	46	37	30	32
Accruals	1,434	2,322	1,424	3,006	4,179
Provisions	867	1,133	1,327	1,428	1,747
Total current liabilities	4,614	5,191	6,464	14,113	26,950
Non-current liabilities					
Borrowings	46	43	30	29	36
Other	51	109	96	140	67
Total non-current liabilities	97	152	126	169	103
NET ASSETS	9,740	12,929	15,594	13,488	10,778

	2007-08 \$000	2008-09 \$000	2009-10 \$000	2010-11 \$000	2011-12 \$000
Equity items					
Contributed capital	4,209	4,209	4,209	4,209	4,209
Reserves	5,531	8,720	11,385	9,279	6,569
TOTAL EQUITY	9,740	12,929	15,594	13,488	10,778
Cash flow items					
Net operating activities	5,378	(679)	8,986	3,089	13,576
Net investing activities	(862)	(211)	(295)	(437)	(288)
Net financing activities	(5)	(69)	(51)	(43)	(35)
Net cash movement	4,511	(959)	8,640	2,609	13,253

Financial summary 2007-08 to 2011-12, \$000



Significant changes in financial results for 2011-12

	Original Corporate Plan April 2011 \$000	Corporate Plan September 2011 ⁱ \$000	Actual \$000
Statement of financial performance			
Total revenue	40,840	43,106	39,618
Total expenditure	54,468	(51,047)	(42,328)
Net result	(13,628)	(7,942)	(2,710)
Statement of financial position			
Cash and receivables	16,433	10,565	36,113
Other	20	49	574
Non-current assets	1,670	1,442	1,144
Total assets	18,123	12,055	37,831
Liabilities			
Current	4,616	6,331	26,950
Non-current	102	178	103
Total liabilities	4,718	6,509	27,053
Net assets	13,406	5,546	10,778

i In September 2011 the Goulburn Broken CMA submitted to the Minister a major deviation to its Corporate Plan based on funding changes since the initial plan was prepared.

Actual revenue is less than the Plan due to the later than budgeted start to the On-Farm Irrigation Efficiency Program – Round 2 (Farm Water Program) funding, largely offset by a similar reduction in expenditure. In addition the Plan forecasts did not include the new Funding received for the Victorian On-Farm State Program announced in the 2011-12 financial year. Actual Cash and Receivables at 30 June 2012 have increased at 30 June 2012 due to the advance receipts under the Farm Water Program which due to the nature of the revenue is not reflected as Income but taken to unearned revenue (included in current liabilities). The revenue is released to the Income Statement once a liability is incurred under the Program.

Program fund source

Program	Corporate Plan Revenue \$000	Variance \$000	Actual revenue \$000	Plus funds brought forward \$000	Expended \$000	Funds carried forward \$000
Land and biodiversity	6,465	782	7,247	3,630	(6,396)	4,481
Corporate	2,358	(841)	1,517	1,459	(2,274)	702
Sustainable Irrigation (inc Farm Water Program)	27,618	(2,690)	24,928	1,080	(25,723)	285
River health	4,399	1,527	5,926	7,319	(7,395)	5,310
Total	40,840	(1,222)	39,618	13,488	(42,328)	10,778

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

Consultancies

	2008-09	2009-10	2010-11	2011-12
Cost	\$1,871,307	\$1,788,412	\$2,744,7488	\$2,066,656
Number of consultants/consultancies	24	61	27	154
Consultancies in excess of \$100,000	3	-	-	n.a.
Consultancies in excess of \$10,000	n.a.	n.a.	n.a.	59

Consultancies over \$10,000

Consultant	Purpose of consultancy	Total approved project fee (Ex GST)	Expenditure 2011-12 (Ex GST)	Future expenditure (Ex GST)
Arthur Rylah Institute	Lower Goulburn Fish Communities Project	99,449.00	100,242.63	-
Australian Ecosystems Consulting Pty Ltd	Mid Goulburn River wetlands assessment	18,720.00	18,313.00	-
Australian Ecosystems Consulting Pty Ltd	Lower Goulburn River wetlands assessment	18,570.00	18,048.00	-
Australian Knowledge Management Group Pty Ltd	Conduct of an External Organisational Evaluation of Goulburn Broken CMA	13,636.36	11,836.17	-
BMT WBM	Shepparton East Urban Stormwater Flood Study	82,350.00	13,201.00	69,149.00
BMT WBM	Nagambie Flood Study	62,340.00	17,700.00	44,640.00
PCB Consulting	Goulburn Broken Soil Health Training modules	18,160.00	22,157.09	-
Collabforge Pty Ltd	Website development for online review of Regional Catchment Strategy	42,000.00	34,210.22	10,998.78
Cornella Local Area Plan Implementation Committee	Coordination and consultation for works relating to the Flood Recovery Employment program	30,000.00	27,272.70	2,727.30
CPG Australia Pty Ltd	Peak Flood Level Capture-- March 2012	50,000.00	34,825.00	-
Chris Smith and Associates	Shepparton East Urban Stormwater Flood Study - Feature Survey	16,500.00	-	16,500.00
Dawes & Vary Pty	Legal advice -- OFIEP Farm Water Program Round 1	30,000.00	3,288.80	-
Dawes & Vary Pty	Legal advice -- Farm Water Program OFIEP Round 2	20,000.00	12,256.02	-
Dawes & Vary Pty	Legal Advice -- Farm Water Program VOSP Round 2.	20,000.00	14,138.50	-
Deakin University	Biofund Monitoring	101,818.18	56,062.00	45,756.18
Department of Primary Industries	Undertake mapping of Arrowhead	18,181.82	18,181.82	-
Department of Sustainability and Environment	An investigation of wetland management techniques	50,800.00	50,800.00	-
Department of Sustainability and Environment	Surveys under Threatened Fish Recovery Program -- Hughes and Sevens Creeks	45,454.55	45,454.55	-
Department of Sustainability and Environment	Surveys under Threatened Fish Recovery Program -- King Parrot Creek	18,181.82	18,181.82	-
Department of Sustainability and Environment	Research into the breeding and stocking of Macquarie Perch	20,000.00	20,000.00	-
Department of Sustainability and Environment	Fire Recovery -- Public Land	410,000.00	100,000.00	-
Ellen Hogan & Associates	Special water Supply Catchment Areas Review	20,000.00	6,999.55	13,000.45
ESRI Australia	GIS System Implementation	22,750.00	-	22,750.00
Feehan Consulting	Incentives Review	10,920.00	10,920.00	-
Feehan Consulting	Ecological Risk Assessment-- assessing the impact of climate change	12,600.00	12,600.00	-
Feehan Consulting	Project Management Framework Review	16,000.00	13,860.00	2,140.00
Feehan Consulting	Provide Executive Officer function Goulburn Broken Catchment Regional Water Quality Group	20,000.00	20,000.00	-
GHD Pty Ltd	Corop Lakes Flood Scoping Study	40,000.00	30,826.00	9,174.00
GHD Pty Ltd	Review of Existing AVIRA Associations and development for estuaries	75,837.26	72,530.90	2,500.00
Goulburn Valley Regional Water Authority	Water Quality Monitoring	105,000.00	105,000.00	-
Murray- Darling Freshwater Research Centre	Lake Mokoan Decommissioning project and Murray- Darling Freshwater Research	56,365.00	57,583.18	-
North Central Catchment Management Authority	Farm Water Program Services	80,000.00	80,000.00	-

Consultancies over \$10,000 (Cont'd)

Consultant	Purpose of consultancy	Total approved project fee (Ex GST)	Expenditure 2011-12 (Ex GST)	Future expenditure (Ex GST)
Peter Ockenden Consulting	Reading the Landscape	15,800.00	5,600.00	10,200.00
Onleys Consulting	Peak Flood Level Capture-- March 2012	35,000.00	34,208.00	-
Oxley and Company	Victorian Environmental Flows Monitoring and Assessment Program Cross Sectional Surveys	39,980.00	39,980.00	-
Interface NRM	Regional Catchment Strategy – Resilience Assessment expertise	30,000.00	19,204.45	10,795.55
Pitcher Partners Consulting Pty Ltd	Internal Audit Services	30,000.00	23,153.35	6,846.65
Rod McLennan & Associates	2010-11 Annual Report preparation	33,600.00	39,040.00	-
Rod McLennan & Associates	2011-12 Annual Report preparation	12,900.00	6,967.00	5,933.00
Rod McLennan & Associates	Regional Catchment Strategy - data collection and analysis	18,060.00	17,816.50	243.50
Rod McLennan & Associates	Regional Catchment Strategy - design and implementation	18,920.00	17,372.49	1,547.51
Rod McLennan & Associates	Regional Catchment Strategy - Monitoring Evaluation & Reporting	17,200.00	17,368.00	-
Rod McLennan & Associates	Farm Water Program Review	17,200.00	17,200.00	-
Rod McLennan & Associates	Farm Water Program Monitoring, Evaluation & Review	17,200.00	12,739.00	4,461.00
RMCG Consulting Group	Farm Water program RMCG tech services	76,610.00	60,201.13	16,408.87
Searches	Land Index, Property Certificate, Water Entitlement Searches	20,000.00	19,181.73	-
Sinclair Knight Merz Pty Ltd Tatura	Holyland Plain Wetland Regulator Design	29,700.00	26,030.00	-
Sinclair Knight Merz Pty Ltd Tatura	Lower Goulburn River Floodplain wetland fish investigation	60,000.00	10,029.00	-
Sinclair Knight Merz Pty Ltd Tatura	Strath & Wild Dog Creek stabilisation Project	24,750.00	12,375.00	12,375.00
Thiess Services	Monitor water height and flow along the Goulburn River	25,000.00	25,000.00	-
Think Spatial	Peak Flood Level Capture - March 2012	25,000.00	13,100.00	11,900.00
TJB Consulting	Workforce Strategy and Capability Framework Development	18,000.00	18,000.00	-
University of Melbourne	Goulburn Broken CMA Contribution to Adaptive Management of Native Vegetation	30,000.00	10,000.00	20,000.00
URS Australia Pty Ltd	Victorian Environmental Flows Monitoring and Assessment Program fish monitoring 2010-11	73,784.00	7,705.90	-
URS Australia Pty Ltd	Victorian Environmental Flows Monitoring and Assessment Program fish monitoring 2011-12	73,786.37	75,817.00	-
URS Australia Pty Ltd	Broken River Fish migration	21,730.00	21,730.00	-
Water Technology Pty Ltd	Goulburn River Elevation Analysis	29,885.00	20,000.00	9,885.00
Water Technology Pty Ltd	Rural Levee Assessment Project	238,000.00	177,475.00	60,525.00
Webfleet Pty Ltd	Fleet Management	20,000.00	20,608.00	-
		2,697,739.36	1,814,390.50	410,456.79
Details of consultancies under \$10 000				
		Total Consultant Fees:	2,066.656.48	

In 2011-12, the total for the 95 consultancies engaged during the year, where the total fees payable to the consultants was less than \$10 000 was **\$252,265.98**. All figures are excluding GST.

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 (Goulburn Broken CMA) have been prepared in accordance with the Standing Directions 4.2 of the *Financial Management Act 1994*, applicable Australian Accounting Standards, Interpretations and other mandatory professional reporting requirements.

We further state that, in our opinion, the information set out in the Comprehensive Operating Statement, 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 2012 and the financial position of the Goulburn Broken CMA as at 30 June 2012.

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



P F Ryan
Chairman



C P Norman
Chief Executive Officer



S D Gibney
Business Manager
27 August 2012



Victorian Auditor-General's Office

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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 2012 of the Goulburn Broken Catchment Management Authority which comprises the comprehensive operating statement, balance sheet, statement of changes in equity, cash flow statement, notes comprising a summary of significant accounting policies and other explanatory information, and the certification to the financial statements has been audited.

The Board Members' Responsibility for the Financial Report

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

Auditor's Responsibility

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

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

Auditing in the Public Interest

Independent Auditor's Report (continued)

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.

Opinion

In my opinion, the financial report presents fairly, in all material respects, the financial position of the Goulburn Broken Catchment Management Authority as at 30 June 2012 and of its financial performance and its cash flows for the year then ended in accordance with applicable Australian Accounting Standards, and the financial reporting requirements of the *Financial Management Act 1994*.

Matters Relating to the Electronic Publication of the Audited Financial Report

This auditor's report relates to the financial report of the Goulburn Broken Catchment Management Authority for the year ended 30 June 2012 included both in the Goulburn Broken Catchment Management Authority's annual report and on the website. The Board Members of the Goulburn Broken Catchment Management Authority are responsible for the integrity of the Goulburn Broken Catchment Management Authority's website. I have not been engaged to report on the integrity of the Goulburn Broken Catchment Management Authority's website. The auditor's report refers only to the subject matter described above. It does not provide an opinion on any other information which may have been hyperlinked to/from these statements. If users of the financial report are concerned with the inherent risks arising from publication on a website, they are advised to refer to the hard copy of the audited financial report to confirm the information contained in the website version of the financial report.

MELBOURNE
28 August 2012

For 
D D R Pearson
Auditor-General

Comprehensive Operating Statement for the financial year ended 30 June 2012

	Note	2012 \$000	2011 \$000
Revenue from operating activities			
Government contributions	3	31,637	32,921
Revenue from government entities	3	6,201	11,066
Other revenues from ordinary activities	3	1,793	2,486
		39,631	46,473
Revenue from non-operating activities	3	(13)	107
TOTAL REVENUE		39,618	46,580
Expenses from operating activities			
Operating costs to works programs	4a	(41,566)	(47,831)
Amortisation of leased assets	4c	(34)	(13)
Depreciation	4b	(441)	(464)
Interest		(15)	(28)
Infrastructure asset write-off		-	(133)
Occupancy expenses		(272)	(217)
TOTAL EXPENSES		(42,328)	(48,686)
NET RESULT FOR THE PERIOD		(2,710)	(2,106)
Comprehensive result		(2,710)	(2,106)

The above Comprehensive Operating Statement should be read in conjunction with the accompanying notes.

Balance Sheet as at 30 June 2012

	Note	2012 \$000	2011 \$000
Assets			
Current assets			
Cash and cash equivalents	5	34,936	21,683
Receivables	6	1,177	4,458
Inventories	7	234	-
Prepayments		35	22
Total current assets		36,382	26,163
Non-current assets			
Property, plant and equipment	8	1,449	1,607
Total non-current assets		1,449	1,607
Total assets		37,831	27,770
Liabilities			
Current liabilities			
Payables	9	7,697	7,315
Unearned revenue	10	17,474	5,340
Interest bearing liabilities	11	32	30
Employee benefits	12	1,747	1,428
Total current liabilities		26,950	14,113
Non-current liabilities			
Interest bearing liabilities	11	36	29
Employee benefits	12	67	140
Total non-current liabilities		103	169
Total liabilities		27,053	14,282
Net assets		10,778	13,488
Equity			
Contributed equity	14	4,209	4,209
Accumulated funds	15	-	-
Reserve	16	6,569	9,279
Total equity		10,778	13,488

The above Balance Sheet should be read in conjunction with the accompanying notes.

Statement of Changes in Equity for the financial year ended 30 June 2012

	Note	Contributors by owners \$000	Reserves \$000	Accumulated funds \$000	Total \$000
Balance at 1 July 2010		4,209	11,385	-	15,594
Net result for the period		-	(2,106)	-	(2,106)
Balance at 30 June 2011		4,209	9,279	-	13,488
Total Comprehensive Income for the year		-	(2,710)	-	(2,710)
Balance at 30 June 2012		4,209	6,569	-	10,778

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 2012

	Note	2012 \$000	2011 \$000
Cash flow from operating activities			
Government contributions		36,462	32,198
Revenue from other Government Entities		6,932	11,925
Payments to suppliers and employees		(32,197)	(43,259)
GST (remitted to) received from Australian Tax Office		355	(883)
Interest received		772	861
Interest paid		(15)	(3)
Other revenue		1,267	2,250
Net cash provided by (used in) operating activities	22b	13,576	3,089
Cash flow from financing activities			
Repayment of finance lease liabilities		(35)	(43)
Net cash provided by (used in) finance activities		(35)	(43)
Cash flow from investing activities			
Proceeds from sale of property, plant and equipment		159	474
Payment for property, plant and equipment		(447)	(911)
Net cash provided by (used in) investing activities		(288)	(437)
Net (decrease) / increase in cash held		13,253	2,609
Cash and cash equivalents at beginning of year		21,683	19,074
Cash and cash equivalents at end of year	22a	34,936	21,683

The above cash flow statement should be read in conjunction with the accompanying notes.

Notes to the financial statements for the year ended 30 June 2012

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

Where applicable, those paragraphs of the AAS's applicable to Not for Profit entities have been applied. The annual financial statements were authorised for issue by the Chief Executive Officer on 27 August 2012.

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.

Classification between current and non-current

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

Rounding

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

Historical cost convention

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

Critical accounting estimates

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

Financial statement presentation

The entity has applied the revised AASB 101 *Presentation of Financial Statements* which became effective for reporting periods beginning on or after 1 July 2011, and AASB 1054 Australian Additional Disclosures which became effective for reporting periods on or after 1 July 2011.

b Revenue recognition

Government contributions

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

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

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

On-Farm Irrigation Efficiency Program

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

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

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

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

Other

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

Interest

Interest is recognised as revenue when earned. Interest earned in relation to the Farm Water (On-Farm Irrigation Efficiency Program) is generally retained by that program and is not the revenue of the Goulburn Broken CMA. Interest earned on this program is held in unearned revenue as at 30 June 2012.

c Borrowing costs

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

d Recognition and measurement of assets

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

Notes to the financial statements for the year ended 30 June 2012

Note 1: Significant accounting policies (Cont'd)

Acquisition

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

Repairs and maintenance

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

Measurement of non-current physical assets

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

Plant and equipment

Plant equipment and motor vehicles are measured at fair value.

Impairment of assets

All assets are assessed annually for indicators of impairment.

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

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

A reversal of an impairment loss

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

e Depreciation and amortisation of non-current assets

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

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

f Leased assets

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

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

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 Inventories

Inventories comprise seed used in the propagation of revegetation works. All inventories are measured at the lower of cost and net realisable value. Costs are assigned to inventory quantities on hand at balance date on a weighted average cost (WAC) basis. Inventories include goods held for distribution at no or nominal cost in the ordinary course of business operations.

Inventories held for distribution or for consumption are measured at the lower of cost and current replacement cost.

Notes to the financial statements for the year ended 30 June 2012

Note 1: Significant accounting policies (Cont'd)

j Prepayments

Prepayments represent payments in advance of receipt of goods or services or that part of expenditure made in one accounting period covering a term extending beyond that period.

k Payables

Payables consist predominantly of trade and sundry creditors. These amounts represent liabilities for goods and services provided to the Corporation 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 the month when recognised.

l Employee benefits

Wages and salaries and annual leave

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

Long service leave

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

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

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

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

Superannuation

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

The Goulburn Broken CMA does not recognise any defined benefit liability in respect of the superannuation plan because the Goulburn Broken CMA has no legal or constructive obligation to pay future benefits relating to its employees, its only obligation is to pay superannuation contributions as they fall due. The Department of Treasury and Finance administers and discloses the State's defined benefit liabilities in its financial report. See Note 13 for more details on superannuation.

Employee benefit on-costs

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

Performance payments

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

m Provisions

Provisions are recognised when the Goulburn Broken CMA as a result of a past event, has a legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation.

n Goods and services tax

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

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

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

Government appropriations

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

o Contributed capital

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

p Changes in accounting policy

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

Notes to the financial statements for the year ended 30 June 2012

Note 1: Significant accounting policies (Cont'd)

q Financial instruments

Recognition

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

Financial assets at fair value through profit or loss

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

Receivables

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

Held-to-maturity investments

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

Impairment of financial assets

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

r Comparative amounts

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

s Interest bearing liabilities

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

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

t Commitments

Commitments for future expenditure include operating and capital commitments arising from contracts. These commitments are disclosed by way of a note (refer to Note 17) at their nominal value and exclusive of the goods and services tax (GST) payable. In addition, where it is considered appropriate and provides additional relevant information to users, the net present values of significant individual projects are stated. These future expenditures cease to be disclosed as commitments once the related liabilities are recognised in the balance sheet.

u Contingent assets and contingent liabilities

Contingent assets and contingent liabilities are not recognised in the balance sheet, but are disclosed by way of a note (refer to Note 18) and, if quantifiable, are measured at nominal value. Contingent assets and liabilities are presented exclusive of GST receivable or payable respectively.

v 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 2012 reporting period. As at 30 June 2012, the following standards and interpretations had been issued but were not mandatory for financial year ending 30 June 2012. The Goulburn Broken CMA has not and does not intend to adopt these standards early.

Notes to the financial statements for the year ended 30 June 2012

Note 1: Significant accounting policies (Cont'd)

Standard / Interpretation	Summary	Applicable for annual reporting periods beginning on	Impact on financial statements
AASB 9 <i>Financial Instruments</i>	This standard simplifies requirements for the classification and measurement of financial assets resulting from Phase 1 of the IASB's project to replace IAS 39 <i>Financial Instruments: Recognition and Measurement</i> (AASB 139 <i>Financial Instruments: Recognition and Measurement</i>).	1 January 2013	Detail of impact is still being assessed.
AASB 13 <i>Fair Value Measurement</i>	This Standard outlines the requirements for measuring the fair value of assets and liabilities and replaces the existing fair value definition and guidance in other AASs. AASB 13 includes a 'fair value hierarchy' which ranks the valuation technique inputs into three levels using unadjusted quoted prices in active markets for identical assets or liabilities; other observable inputs; and unobservable inputs.	1 January 2013	Disclosure for fair value measurements using unobservable inputs are relatively onerous compared to disclosure for fair value measurements using observable inputs. Consequently, the Standard may increase the disclosures for public sector entities that have assets measured using depreciated replacement cost.
AASB 119 <i>Employee Benefits</i>	In this revised Standard for defined benefit superannuation plans, there is a change to the methodology in the calculation of superannuation expenses, in particular there is now a change in the split between superannuation interest expense (classified as transactions) and actuarial gains and losses (classified as 'Other economic flows – other movements in equity') reported on the comprehensive operating statement.	1 January 2013	Not-for-profit entities are not permitted to apply this Standard prior to the mandatory application date. While the total superannuation expense is unchanged, the revised methodology is expected to have a negative impact on the net result from transactions of the general government sector and for those few Victorian public sector entities that report superannuation defined benefit plans.
AASB 1053 <i>Application of Tiers of Australian Accounting Standards</i>	This Standard establishes a differential financial reporting framework consisting of two tiers of reporting requirements for preparing general purpose financial statements.	1 July 2013	The Victorian Government is currently considering the impacts of Reduced Disclosure Requirements (RDRs) for certain public sector entities and has not decided if RDRs will be implemented in the Victorian public sector.
AASB 2009-11 <i>Amendments to Australian Accounting Standards arising from AASB 9 [AASB 1, 3, 4, 5, 7, 101, 102, 108, 112, 118, 121, 127, 128, 131, 132, 136, 139, 1023 and 1038 and Interpretations 10 and 12]</i>	This Standard gives effect to consequential changes arising from the issuance of AASB 9.	1 January 2013	No significant impact is expected from these consequential amendments on entity reporting.
AASB 2010-2 <i>Amendments to Australian Accounting Standards arising from Reduced Disclosure Requirements</i>	This Standard makes amendments to many Australian Accounting Standards, including Interpretations, to introduce reduced disclosure requirements to the pronouncements for application by certain types of entities.	1 July 2013	The Victorian Government is currently considering the impacts of Reduced Disclosure Requirements (RDRs) for certain public sector entities and has not decided if RDRs will be implemented in the Victorian public sector.
AASB 2010-7 <i>Amendments to Australian Accounting Standards arising from AASB 9 (December 2010) [AASB 1, 3, 4, 5, 7, 101, 102, 108, 112, 118, 120, 121, 127, 128, 131, 132, 136, 137, 139, 1023 & 1038 and Interpretations 2, 5, 10, 12, 19 & 127]</i>	These consequential amendments are in relation to the introduction of AASB 9.	1 Jan 2013	No significant impact is expected from these consequential amendments on entity reporting.
AASB 2011-3 <i>Amendments to Australian Accounting Standards – Orderly Adoption of Changes to the ABS GFS Manual and Related Amendments [AASB 1049]</i>	This amends AASB 1049 to clarify the definition of the ABS GFS Manual, and to facilitate the adoption of changes to the ABS GFS Manual and related disclosures.	1 July 2012	This amendment provides clarification to users preparing the whole of government and general government sector financial reports on the version of the GFS Manual to be used and what to disclose if the latest GFS Manual is not used. No impact on Goulburn Broken CMA reporting.
AASB 2011-4 <i>Amendments to Australian Accounting Standards to Remove Individual Key Management Personnel Disclosure Requirements [AASB 124]</i>	This Standard amends AASB 124 Related Party Disclosures by removing the disclosure requirements in AASB 124 in relation to individual key management personnel (KMP).	1 July 2013	No significant impact is expected from these consequential amendments on entity reporting.
AASB 2011-8 <i>Amendments to Australian Accounting Standards arising from AASB 13 [AASB 1, 2, 3, 4, 5, 7, 9, 2009-11, 2010-7, 101, 102, 108, 110, 116, 117, 118, 119, 120, 121, 128, 131, 132, 133, 134, 136, 138, 139, 140, 141, 1004, 1023 & 1038 and Interpretations 2, 4, 12, 13, 14, 17, 19, 131 & 132]</i>	This amending Standard makes consequential changes to a range of Standards and Interpretations arising from the issuance of AASB 13. In particular, this Standard replaces the existing definition and guidance of fair value measurements in other Australian Accounting Standards and Interpretations.	1 Jan 2013	Disclosures for fair value measurements using unobservable inputs is potentially onerous, and may increase disclosures for assets measured using depreciated replacement cost.

Notes to the financial statements for the year ended 30 June 2012

Note 1: Significant accounting policies (Cont'd)

Standard / Interpretation	Summary	Applicable for annual reporting periods beginning on	Impact on financial statements
<p>AASB 2011-9 <i>Amendments to Australian Accounting Standards – Presentation of Items of Other Comprehensive Income</i> [AASB 1, 5, 7, 101, 112, 120, 121, 132, 133, 134, 1039 & 1049]</p>	<p>The main change resulting from this Standard is a requirement for entities to group items presented in other comprehensive income (OCI) on the basis of whether they are potentially reclassifiable to profit or loss subsequently (reclassification adjustments). These amendments do not remove the option to present profit or loss and other comprehensive income in two statements, nor change the option to present items of OCI either before tax or net of tax.</p>	<p>1 July 2012</p>	<p>This amending Standard could change the current presentation of 'Other economic flows- other movements in equity' that will be grouped on the basis of whether they are potentially reclassifiable to profit or loss subsequently. No other significant impact will be expected.</p>
<p>AASB 2011-10 <i>Amendments to Australian Accounting Standards arising from AASB 119 (September 2011)</i> [AASB 1, AASB 8, AASB 101, AASB 124, AASB 134, AASB 1049 & AASB 2011-8 and Interpretation 14]</p>	<p>This Standard makes consequential changes to a range of other Australian Accounting Standards and Interpretation arising from the issuance of AASB 119 <i>Employee Benefits</i>.</p>	<p>1 Jan 2013</p>	<p>No significant impact is expected from these consequential amendments on entity reporting.</p>
<p>AASB 2011-11 <i>Amendments to AASB 119 (September 2011) arising from Reduced Disclosure Requirements</i></p>	<p>This Standard makes amendments to AASB 119 <i>Employee Benefits</i> (September 2011), to incorporate reduced disclosure requirements into the Standard for entities applying Tier 2 requirements in preparing general purpose financial statements.</p>	<p>1 July 2013</p>	<p>The Victorian Government is currently considering the impacts of Reduced Disclosure Requirements (RDRs) and has not decided if RDRs will be implemented in the Victorian public sector.</p>
<p>2011-13 <i>Amendments to Australian Accounting Standard – Improvements to AASB 1049</i></p>	<p>This Standard aims to improve the AASB 1049 <i>Whole of Government and General Government Sector Financial Reporting</i> at the operational level. The main amendments clarify a number of requirements in AASB 1049, including the amendment to allow disclosure of other measures of key fiscal aggregates as long as they are clearly distinguished from the key fiscal aggregates and do not detract from the information required by AASB 1049. Furthermore, this Standard provides additional guidance and examples on the classification between 'transactions' and 'other economic flows' for GAAP items without GFS equivalents.</p>	<p>1 July 2012</p>	<p>No significant impact is expected from these consequential amendments on entity reporting.</p>
<p>2012-1 <i>Amendments to Australian Accounting Standards - Fair Value Measurement - Reduced Disclosure Requirements</i> [AASB 3, AASB 7, AASB 13, AASB 140 & AASB 141]</p>	<p>This amending Standard prescribes the reduced disclosure requirements in a number of Australian Accounting Standards as a consequence of the issuance of AASB 13 <i>Fair Value Measurement</i>.</p>	<p>1 July 2013</p>	<p>As the Victorian whole of government and the general government (GG) sector are subject to Tier 1 reporting requirements (refer to AASB 1053 <i>Application of Tiers of Australian Accounting Standards</i>), the reduced disclosure requirements included in AASB 2012-1 will not affect the financial reporting for Victorian whole of government and GG sector.</p>

Notes to the financial statements for the year ended 30 June 2012

Note 2: Financial risk management objectives and policies

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

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

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

2.1 Risk exposures

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

a Market risk

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

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

Interest rate risk

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

Other price risk

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

Market risk sensitivity analysis

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

30 June 2012	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	34,936	(349)	(349)	349	349
Receivables	1,177	-	-	-	-
Financial liabilities					
Payables	(7,697)	-	-	-	-
Interest bearing liabilities	(68)	-	-	-	-
Total increase/(decrease)	28,348	(349)	(349)	349	349

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

Notes to the financial statements for the year ended 30 June 2012

Note 2: Financial risk management objectives and policies (cont'd)

b Credit risk

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

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

c Liquidity risk

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

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

The Goulburn Broken CMA's financial liability maturities have been disclosed in Note 23.

2.2 Fair valuation estimation

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

The carrying amounts and aggregate net fair values of financial assets and financial liabilities at balance date have been provided in Note 23.

Note 3: Revenues

	Note	2012 \$000	2011 \$000
Government Contributions			
State		17,035	16,746
Commonwealth		14,602	16,175
Total Government Contributions		31,637	32,921
Revenue From Government Entities			
Northern Victorian Irrigation Renewal Project		5,928	10,738
Murray-Darling Basin Authority		273	328
Total Revenue From Government Entities		6,201	11,066
Other Revenues			
Interest		792	849
Seedbank		118	184
Regional Contributions		540	991
Recoverable Costs		230	160
Other		113	302
Total Other Revenues		1,793	2,486
Non Operating Revenue			
(Loss)/Gain on Disposal of Property, Plant & Equipment		(13)	107
Total Revenue		39,618	46,580

Notes to the financial statements for the year ended 30 June 2012

Note 4: Expenses

Net result for the period has been determined after:

	Note	2012 \$000	2011 \$000
a Operating costs to works programs			
Land and Biodiversity		6,326	7,292
Sustainable Irrigation		25,688	29,009
River Health		7,764	10,085
Corporate			
• Audit Fees - External		12	12
- Internal		38	35
• Other		1,126	1,009
Corporate Administration		1,176	1,056
• Business Development		386	249
• Regional Catchment Strategy		226	14
• Other		-	126
Total Corporate		1,788	1,445
Total operating costs to works program		41,566	47,831
b Depreciation of non-current assets			
Buildings		-	2
Plant and equipment and other		96	134
Motor vehicles		345	328
Total depreciation		441	464
c Amortisation of leased assets		34	13
d Employee related expenses			
Included in the Program Expenditure totals are the following employee related expenses			
Salary & Wages		4,357	4,047
Annual Leave		391	317
Long Service Leave		223	258
Employer Superannuation contributions		743	547
Other		195	285
Total employee related expenses		5,909	5,454

Note 5: Cash and cash equivalents

	Note	\$000	\$000
Cash on hand		2	2
Cash at Bank		13,974	8,781
Term Deposit at Bank		2,027	-
Deposits at Call with Treasury Corp Victoria		18,933	12,900
Total cash and cash equivalents		34,936	21,683

All of these funds are restricted in that they are held to be spent on a range of programs which the Goulburn Broken CMA currently has underway.

(a) Reconciliation to cash at the end of the year

The above figures are agreed to cash at the end of the financial year as shown in the Cash Flow Statement.

(b) Cash at Bank

Amounts at bank bear floating interest rates currently 3.40% (2011: 4.65%)

(c) Term deposit at Bank

Term Deposit bears interest at 4.51% and matures on 20 August 2012 (2011: Nil)

(d) Deposits at call

The Deposits at call with Treasury Corporation Victoria bear interest at 3.45% (2011: 4.70%)

Notes to the financial statements for the year ended 30 June 2012

Note 6: Receivables

	Note	2012 \$000	2011 \$000
Government grants receivable		569	2,463
GST recoverable – On-Farm Irrigation Efficiency Program payments due		-	1,045
Net GST amount due from Australian Tax Office		364	446
Trade debtors		142	422
Accrued interest		102	82
Total receivables		1,177	4,458

a Provision for impaired receivables

As at 30 June 2012, current receivables of the Goulburn Broken CMA with a nominal value of \$nil (2011: \$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 2012, government receivables of \$nil (2011: \$68,952) and other receivables of \$nil (2011: \$24,968) were past due but not impaired. These relate to entities for which there is no recent history of default. The ageing analysis of these receivables is as follows:

Three to six months		-	69
Over six months		-	25
Total		-	94

Note 7: Inventories

Total		234	0
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Inventory reflected is the value of seed which is held on behalf of the Goulburn Broken Indigenous Seedbank, a joint venture between Goulburn Broken CMA and Melbourne University. Whilst the Goulburn Broken CMA holds the asset, it is the intention of the Goulburn Broken CMA to find a successor organisation to manage the Seedbank operation.

Notes to the financial statements for the year ended 30 June 2012

Note 8: Property plant and equipment

	Note	2012 \$000	2011 \$000
Buildings at fair value		44	44
Less accumulated depreciation		(44)	(44)
		-	-
Plant and equipment at fair value		1,015	935
Less accumulated depreciation		(814)	(745)
		201	190
Motor vehicles at fair value		1,742	1,689
Less accumulated depreciation		(558)	(327)
		1,184	1,362
Office and computer equipment acquired under finance lease at fair value		272	250
Accumulated amortisation		(208)	(195)
		64	55
Dowdle Swamp floodway at cost		-	170
Less accumulated depreciation		-	(37)
Less Infrastructure asset write-off		-	(133)
		-	-
Total property, plant and equipment		1,449	1,607

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
2011-12						
Opening written down value at 1 July 2011	-	-	190	1,362	55	1,607
Additions	-	-	107	340	43	490
Disposals	-	-	-	(173)	-	(173)
Asset write-off	-	-	-	-	-	-
Depreciation expense	-	-	(96)	(345)	-	(441)
Amortisation	-	-	-	-	(34)	(34)
Closing written down value at 30 June 2012	-	-	201	1,184	64	1,449
2010-11						
Opening written down value at 1 July 2010	136	2	313	1,135	54	1,640
Additions	-	-	8	903	35	946
Disposals	-	-	-	(348)	(21)	(369)
Asset write-off	(133)	-	-	-	-	(133)
Depreciation expense	(3)	(2)	(131)	(328)	-	(464)
Amortisation	-	-	-	-	(13)	(13)
Closing written down value at 30 June 2011	-	-	190	1,362	55	1,607

Note 9: Payables

	Note	2012 \$000	2011 \$000
Trade creditors		3,518	4,309
Accruals		4,179	3,006
Total payables		7,697	7,315

Notes to the financial statements for the year ended 30 June 2012

Note 10: Unearned Revenue

	Note	2012 \$000	2011 \$000
Commonwealth OFIEP Round 1		1,711	4,003
Commonwealth OFIEP Round 1 - Interest		210	117
NVIRP		591	1,220
Commonwealth OFIEP Round 2		8,108	-
Commonwealth OFIEP Round 2 - Interest		50	-
Victorian On-Farm State Project		6,706	-
Victorian On-Farm State Project - Interest		98	-
Total		17,474	5,340

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

Note 11: Interest bearing liabilities

Current			
Secured			
Finance lease liability	17b	32	30
Non-current			
Secured			
Finance lease liability	17b	36	29
Assets pledged as security		-	-
Total interest bearing liabilities		68	59

Note 12: 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		467	400
Employee benefits expected to be settled after 12 months, after the end of the period, measured at present value		1,280	1,028
Total current		1,747	1,428
Non-current			
Conditional long service leave measured at present value		67	140
Total employee benefits		1,814	1,568

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:

	2012	2011
Weighted average increase in employee costs	4.31%	4.60%
Weighted average discount rates	2.87%	4.93%
Weighted average settlement period	10 years	10 years

Notes to the financial statements for the year ended 30 June 2012

Note 13: Superannuation

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

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

Defined Benefit Plan

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

Goulburn Broken CMA makes employer contributions to the defined benefit category of the Fund at rates determined by the Trustee on the advice of the Fund's Actuary. On the basis of the results of the most recent full actuarial investigation conducted by the Fund's Actuary as at 31 December 2011, Goulburn Broken CMA makes the following contributions:

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

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

Accounting Standard disclosure

The Fund's liability for accrued benefits was determined by the Actuary at 31 December 2011 pursuant to the requirements of Australian Accounting Standard AAS25 as follows:

	31 Dec 2011 \$000
Net market value of assets	4,315,324
Accrued benefits (per accounting standards)	4,642,133
Difference between assets and accrued benefits	(326,809)
Vested benefits (minimum sum which must be paid to members when they leave the fund)	4,838,503

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

Net investment return	7.50% per annum
Salary inflation	4.25% per annum
Price inflation	2.75% per annum

Contributions

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

	Type of scheme	Rate %	2012 \$000	2011 \$000
Government Superannuation Office	Accumulation	Various	87	69
Vision Super	Defined Benefits	9.25	16	15
Vision Super	Accumulation	9.00	180	165
Other funds	Accumulation	9.00	347	291
Total contributions to all funds			630	540

As at balance date, there were contributions payable of \$181,753 (2011: \$67,624).

The Local Authorities Superannuation Fund latest 31 December 2011 actuarial investigation identified an unfunded liability of \$453 million excluding the contributions tax in the defined benefit fund of which we are a member. Goulburn Broken CMA was made aware of the expected shortfall through the year and was informed formally of its share of the shortfall on 1 August 2012 which amounted to \$134,410 payable by 1 July 2013. Goulburn Broken CMA has elected to pay this amount by the end of the next financial year. Goulburn Broken CMA has accounted for this shortfall in the Comprehensive Operating Statement in Employee benefits (Note 4d) and in the Balance Sheet by way of an accrued liability.

Notes to the financial statements for the year ended 30 June 2012

Note 14: Contributed equity

	Note	2012 \$000	2011 \$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 15: Accumulated funds

Balance at the beginning of the reporting period		-	-
Net result for the year		(2,710)	(2,106)
Transfer from / (to) reserves		2,710	2,106
Balance at the end of the reporting period		-	-

Note 16: Reserve

Committed funds reserve			
Balance at the beginning of the reporting period		9,279	11,385
Net transfers (to) / from accumulated funds		(2,710)	(2,106)
Balance at the end of the reporting period		6,569	9,279

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 of a recurrent nature are taken to revenue as soon as the Goulburn Broken CMA has the right to receive those funds and generally there is a time lag between the right to receive the funds and the commencement of the associated works program.

Note 17: Commitments

a Operating lease commitments:			
Office accommodation			
Within one year		328	150
One year to five years		643	41
		971	191
Photocopier			
Within one year		2	4
One year to five years		-	2
		2	6
Total			
Within one year		330	154
One year to five years		643	43
Total		973	197
b Finance leases commitments			
At balance date that Goulburn Broken CMA had finance lease commitments payable as follows:			
Within one year		35	31
One year to five years		38	32
Less future finance charges		(5)	(4)
Total		68	59
Represented by:			
Current liability	11	32	30
Non-current liability	11	36	29
Total		68	59
c Capital commitments			
At balance date the Goulburn Broken CMA had commitments for capital expenditure payable as follows:			
Within one year		-	44

Notes to the financial statements for the year ended 30 June 2012

Note 17: Commitments (cont'd)

d Contributions subject to restrictions

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

2011-12 Program	Revenue recognised			Outgoings	Unexpended program contributions	Outstanding program commitment	Variance Note (e)
	Funds carried forward 1 July 2011	Funds recognised in 2011-12	Total	Expended 2011-12	Funds carried forward 1 July 2012		
	\$000	\$000	\$000	\$000	\$000	\$000	\$000
Land and Biodiversity	3,630	7,247	10,877	(6,396)	4,481	(2,438)	2,043
Corporate	1,459	1,517	2,976	(2,274)	702	(57)	645
Sustainable Irrigation	1,080	24,928	26,008	(25,723)	285	(58,437)	(58,152)
River Health	7,319	5,926	13,245	(7,935)	5,310	(1,384)	3,926
Total	13,488	39,618	53,106	(42,328)	10,778	(62,316)	(51,538)

2010-11 Program	Revenue recognised			Outgoings	Unexpended program contributions	Outstanding program commitment	Variance Note (e)
	Funds carried forward 1 July 2010	Funds recognised in 2010-11	Total	Current year	Funds carried forward 1 July 2011		
	\$000	\$000	\$000	\$000	\$000	\$000	\$000
Land and Biodiversity	2,612	6,968	9,580	(5,950)	3,630	(1,852)	1,778
Corporate	1,199	3,013	4,212	(2,753)	1,459	(38)	1,421
Sustainable Irrigation	513	29,627	30,140	(29,060)	1,080	(16,035)	(14,955)
River Health	11,270	6,972	18,242	(10,923)	7,319	(1,323)	5,996
Total	15,594	46,580	62,174	(48,686)	13,488	(19,248)	(5,760)

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

	2012	2011
	\$000	\$000
Within one year	57,637	18,748
Later than one year but within five years	4,679	488
Later than five years	-	12
Total committed funds	62,316	19,248

e Contributions subject to restrictions – variances

Variances under the Sustainable Irrigation Program relate primarily to Farm Water Program commitments made under the Program which are funded from funds already received and held in unearned revenue plus the balance receivable under the Program per the Funding Agreement.

Note 18: Contingent assets and liabilities

The Goulburn Broken CMA, through VCAT is in mediation with a landholder who claimed that works undertaken by Goulburn Broken CMA has allegedly impacted the flow of water on the landholder's property. The quantum of the claim is not considered material.

Note 19: Events occurring after balance sheet date

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

Notes to the financial statements for the year ended 30 June 2012

Note 20: 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	Ryan Smith MP	1 July 2011 to 30 June 2012
Minister for Water	Peter Walsh MP	1 July 2011 to 30 June 2012

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

<i>Position</i>		<i>First Appointed</i>	<i>Term Expired</i>
Chairman	P F Ryan	1 July 2009; Acting Chairman 1 July 2011 – 30 September 2011; Chairman 1 Oct 2011	-
Board Member	M Chapman	1 July 2009; Deputy Chairman 21 Oct 2011	-
Board Member	T Court	1 July 2009	30 September 2011
Board Member	J Craven	1 October 2011	-
Board Member	M Dalmau	1 October 2011	-
Board Member	A Fox	1 October 2011	-
Board Member	E Curtis	1 July 2009	30 September 2011
Board Member	L Gunter	1 July 2003	30 September 2011
Board Member	A MacKenzie	1 October 2011	-
Board Member	R Pell	1 July 2009	-
Board Member	J Pettigrew	1 July 2003,	30 September 2011
Board Member	R Runnalls	1 October 2011	-
Board Member	C Silverstein	1 October 2011	-
Board Member	F Whitford	1 July 2009	30 September 2011
CEO	C P Norman	15 December 2009	-
Acting CEO	W Tennant	12-20 January 2012	-

b Remuneration of responsible persons

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

Income bands	2012 no.	2011 no.
\$1-\$9,999	11	-
\$10,000-\$19,999	2	7
\$20,000-\$29,999	1	1
\$80,000-\$89,999	-	-
\$90,000-\$99,999	-	-
\$180,000-\$189,999	1	1
Total	15	9

The total remuneration of responsible persons referred to in the above bands was \$296,767 (2011: \$310,491) which includes \$46,095 (2011: \$32,624) 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.

Notes to the financial statements for the year ended 30 June 2012

Note 20: Responsible persons related disclosures (cont'd)

c Remuneration of executives

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

Remuneration bands	Total remuneration		Base remuneration	
	2012	2011	2012	2011
\$100,000 - \$109,999	-	1	1	1
\$110,000 - \$119,999	2	-	2	1
\$120,000 - \$129,999	1	2	-	2
\$130,000 - \$139,999	1	2	2	1
\$140,000 - \$149,999	1	-	-	1
\$150,000 - \$159,999	1	1	1	1
\$160,000 - \$169,999	-	1	-	-
Total amount	\$789,921	\$940,229	\$752,601	\$898,934
Total numbers	6	7	6	7

d Other related party transactions

Loans

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

Shares

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

Other

Payments totalling \$139,906.00 (2011: \$201,402.00) under the Commonwealth funded On-Farm Irrigation Efficiency Program were paid to a Partnership in which Frank Whitford held an interest. The grant payment was in line with the Goulburn Broken CMA's normal terms and conditions of the grant scheme.

Payments under the Commonwealth funded On-Farm Irrigation Efficiency Program totalling \$332,628.51 (2011: \$259,076.00) were made to an entity in which Russell Pell holds an interest. The payments were in line with the Goulburn Broken CMA's normal terms and conditions of the program.

Note 21: Economic dependence

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

Note 22: Cash flow information

	Note	2012 \$000	2011 \$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	34,936	21,683
b Reconciliation of cash flow from operations with net result for the year			
Net result for the period		(2,710)	(2,106)
Non-cash flows in net result			
Depreciation		441	464
Infrastructure Asset write-off		-	133
Amortisation		34	13
Net loss (gain) on disposal of non-current assets		13	(107)
Changes in assets and liabilities			
decrease / (Increase) in receivables		3,281	(3,004)
(Increase) / decrease in inventories		(234)	-
(Increase) / decrease in prepayments		(13)	(6)
decrease / (Increase) in provisions		246	145
Increase / (decrease) in unearned revenue		12,134	5,340
Increase / (decrease) in payables		384	2,217
Cash flows from operating activities		13,576	3,089

Notes to the financial statements for the year ended 30 June 2012

c Property plant and equipment

During the financial year the Goulburn Broken CMA acquired computer equipment with an aggregate fair value of \$43,276 (2011: \$34,465) by means of finance leases. These acquisitions are not reflected in the cash flow statement.

Note 23: Financial instruments

Interest risk rate exposures

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

	Weighted average interest rate %	Floating interest rates \$000	Fixed interest rate maturing			Non-interest bearing \$000
			1 year or less \$000	1 to 2 years \$000	2 to 3 years \$000	
2011-12						
Financial assets						
Cash	3.48	32,907	2,027	-	-	2
Receivables	-					1,177
Total financial assets		32,907	2,027	-	-	1,179
Financial liabilities						
Lease liabilities	5.29		32	24	12	
Payables	-					(7,697)
Total financial liabilities	-		(32)	(24)	(12)	(7,697)
Net financial (liabilities)	-	32,907	1,995	(24)	(12)	(6,518)
2010-11						
Financial assets						
Cash	4.17	21,681	-	-	-	2
Receivables	n/a	-	-	-	-	4,458
Total financial assets		21,681	-	-	-	4,460
Financial liabilities						
Lease liabilities	4.76	-	30	23	6	-
Payables	n/a	-				7,315
Total financial liabilities	-	-	30	23	6	7,315
Net financial (liabilities)	-	21,681	(30)	(23)	(6)	(2,855)

Fair value

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

	2012		2011	
	Carrying amount \$000	Fair value \$000	Carrying amount \$000	Fair value \$000
Financial assets				
Cash	34,936	34,936	21,683	21,683
Receivables	1,177	1,177	4,458	4,458
Total financial assets	36,113	36,113	26,141	26,141
Financial liabilities				
Lease liabilities	68	68	59	59
Payables	7,697	7,697	7,315	7,315
Total financial liabilities	7,765	7,765	7,374	7,374

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

Note 24: Authority details

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

Appendix 1: Understanding progress and ratings

Compiled by Rod McLennan

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

The ordering of information, which helps develop consistency and understanding across the many aspects of catchment management, 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.

Evaluation, planning levels and decision-making cycles

Decisions in catchment management have vastly different timeframes, from daily operational decisions by extension officers to once-in-six-year strategic decisions by the Goulburn Broken CMA Board. The Goulburn Broken CMA arranges data to inform three critical and connected levels of evaluation for strategic planning and implementation, as shown in the below table.

Evidence for three levels of analysis

Evaluation level	Evaluation terminology	Typical key evaluation questions used to focus evaluation	Examples of evidence to inform evaluation
1	Annual performance	How did we go this year against what we said we would do?	Outputs (onground works and capacity building actions or tasks) achieved and funds spent against targets set in the Corporate Plan
2	Long-term strategy implementation progress	How have we gone against what we said we would do when we wrote the (various) strategies? How effective were the implemented measures?	Outputs and assumptions of their impact listed in strategies
3	Catchment condition change	What 'shape' is the issue we are managing in now? 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?	Resource condition; trends; tipping points; indicators of resilience, adaptation and transformation responses

Annual performance

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

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

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

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 the certainty of the rating.

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 increasingly 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 in each program area, see the 'Outputs – detailed list of achievements' table on page 114. 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 long-term progress ratings increases.

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

What does Catchment condition mean?

Measuring the condition of the Catchment has historically focused on discrete themes, including biophysical investment areas such as salinity, water quality, river health and biodiversity, and non-biophysical investment areas such as community capacity. 'Headline themes' have been mandated as the way that 'management summary' and 'Catchment condition' reports will be structured in Victoria from 2009-10 (see page 43).

The National Framework for Natural Resource Management Standards and Targets (2002) listed 10 similar types of themes as resource condition 'matters for target'. It also recommended indicator headings and indicators of progress. Resource condition indicator examples are depth to groundwater, soil acidity, total phosphorus levels in water and the extent of native vegetation present by interim biogeographical regionalisation of Australia sub-regions.

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

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

More information on the investment areas in an integrated context is needed to make better decisions. This means information on all elements that impact on particular investment areas is needed to rate the condition of the Catchment for that investment area.

The Goulburn Broken CMA 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 the Goulburn Broken CMA is in the early stages of 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. Biophysically focused sub-strategies 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 thinking helps to expand thinking to the whole of system. This approach evolved out of the Goulburn Broken CMA's sustainability and ecosystem services thinking and is a major focus during the current review of the Regional Catchment Strategy.

Characteristics of desired systems include:

- resilience: the capacity to withstand shocks and rebuild without collapsing into a different system
- adaptability: the capacity of participants to influence resilience
- transformability: the capacity to create a fundamentally new system if necessary.

Together, these characteristics can be considered as part of the resilience package.

Thinking about resilience ensures that fundamental questions are at the forefront of our minds, such as:

- Are our systems sufficiently resilient to withstand a shock?
- Are our systems close to a threshold (or tipping point into a completely different regime)?
 - is it better to accept that our systems are transforming into a different regime and accept that we should just focus on managing the change?
 - what interventions can or should be made to build resilience?

Resilience, adaptability and transformability are important components of investment areas under both 'The Environment' and 'The Business'.

ⁱ The above discussions on socio-ecological systems and resilience have drawn heavily from 'Resilience, Adaptability and Transformability in the Goulburn-Broken Catchment' (2009) by Walker, Abel, Anderies and Ryan; the Resilience Alliance website www.resalliance.org and from 'Resilience Management – A Guide for Irrigated Regions, Communities and Enterprises' (2007) by Wolfenden, Evans, Essaw, Johnson, Sanderson, Starkey and Wilkinson.

Appendix 2: The Environment – evidence of annual performance and long-term progress

This appendix provides evidence for the ratings of progress given in the scoreboards on pages 12, 13 and 16 that relate to 'The Environment'. Evidence for ratings related to 'The Business' are provided in sections on 'Collaborations and communities' (page 17), 'Planning and responding' (page 26), 'Environmental footprint' (page 31), 'Human resources' (page 33), and 'Governance' (page 39).

Investment area 1 - Sustainable Irrigation

Investment area 1a – Shepparton Irrigation Region (SIR) salinity: watertables and River Murray salinity

Compiled by Carl Walters, Peter Howard, Rabi Maskey, James Burkiitt, Sam Green, Jennifer Pagon, Megan McFarlane and Fiona Lloyd. See www.gbcma.vic.gov.au for more details.

Long-term strategy implementation progress and Catchment condition change

Decision focus ⁱ	Examples of evidence used to inform decisions	1990 ⁱⁱ	Certainty of rating	2012	Certainty of rating	Trend
2011-12 performance	Outputs (against targets set as a result of funds received)	n.a.	n.a.	On target	High	n.a.
Long-term strategy implementation progress	Outputs (scheduled between 1990 and 2011)	n.a.	n.a.	On target	High	● ⁱⁱⁱ
Catchment condition ^{iv}	Watertable salinity and depths Salt disposed to River Murray Salinity of environmental features Management systems	Poor	Low	Good	Medium	↓

i. See Appendix 1 for notes on the analytical framework (page 78), including an explanation of the decision focus and ratings.

ii. Ratings for 1990 have been determined using our understanding in 2012 of the situation in 1990.

iii. Assumed to parallel government funding trend.

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

Background

Salinity has been the biggest natural resource challenge in the Shepparton Irrigation Region over the last three decades.

The Shepparton Irrigation Region community's 2020 resource condition targets are to:

- Minimise irrigation related salinity impacts from shallow watertables within the Shepparton Irrigation Region (500,000 hectares) by improved irrigation management on farms, improved surface water management within drainage catchments and appropriate pumping, reuse and disposal of groundwater over 216,000 hectares
- Manage the salinity impacts on the River Murray at Morgan (in South Australia) from the implementation of the Shepparton Irrigation Region Catchment Implementation Strategy, in accordance with the Murray Darling Basin Authority's Basin Salinity Management Strategy requirements, at or below 8.9 EC (electrical conductivity unit).

Management of salt within the Shepparton Irrigation Region is essential to achieve a sustainable irrigation industry and protect the productive capacity of the region. Actions to manage salinity have significant benefits for agriculture, water quality, water supply security and biodiversity.

The Murray Darling Basin Authority recognises that managed discharges of salt to waterways is required from the Shepparton Irrigation Region and regulates this action via obligations placed upon Victoria and the region under the Murray Darling Basin Authority's Basin Salinity Management Strategy 2001-15.

Government investment, \$000

2009-10	2010-11	2011-12	2012-13 ⁱ	Trend
8,607	29,631	29,928	47,247	●

i. Forecast based on advice at August 2012.

Major strategic references

- Shepparton Irrigation Region Land and Water Salinity Management Plan 1989 (reviews completed 1995, 2000, 2003, 2005-06 and Implementation Plan 2006-07 to 2010-11), now called the Shepparton Irrigation Region Catchment Implementation Strategy

Salinity program areas are implemented by the Sustainable Irrigation Program with community participation through the Sustainable Irrigation Program Advisory Group which oversees four programs through participation in working groups: Farm and Environment, Groundwater and Salinity Management, Surface Water Management and Farm Water. These working groups comprise agency staff and community members, including representatives from Goulburn-Murray Water, Water Services Committees, the Victorian Farmers Federation, local government, industry and environment groups.

Different farm sectors have different salinity management needs. Reduced water allocations in recent years resulted in some farm sectors declining. Regional tertiary industries are also adapting in response to changing supplies of primary produce and volatile market conditions. Farms are also generally getting bigger as many farmers leave the industry. These changes affect the types and amount of benefit that investment in salinity management achieves.

Climate variability and irrigation salinity

Regardless of climate variability, salinity will always be a potential issue in the Shepparton Irrigation Region. Climate variability affects the approach to managing land salinisation in the Shepparton Irrigation Region and River Murray salinity downstream of the Shepparton Irrigation Region.

The recent wetter climate has caused watertables to rise significantly within the Shepparton Irrigation Region. Salinity risk maps show that the areas that may potentially re-emerge as being under threat from salinity are predominantly within the proposed modernised irrigation footprint.

Water ownership also continues to change, with an increasing proportion becoming part of the Environmental Water Reserve (see page 88) 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 84), funded by the Australian and Victorian Governments, invests in on-farm works that increase regional productivity while gaining water for the Environmental Water Reserve. These works are integrated with the irrigation system upgrade that is being undertaken as part of the Northern Victorian Irrigation Renewal Project.

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) may have the adverse effect of mobilising salt.

The improved efficiency of the irrigation industry and reduced allocations of irrigation water might increase River Murray salinity because of reduced diluting outfall flows from channels and properties and from lower river flows during summer. This increase in salinity could be balanced by the timing of environmental water deliveries. The Goulburn Broken CMA is working closely with North Central CMA, Department of Sustainability and Environment, Goulburn-Murray Water and Northern Victorian Irrigation Renewal Project to understand and assess the effect of irrigation modernisation activities on salt loads.

Works and extension

Actions 2009-10, 2010-11 and 2011-12

Action ⁱ		From funds received through Corporate Plan ⁱⁱ				% achieved
		Achieved		Target ⁱⁱ		
		2009-10	2010-11	2011-12		
Surface water action						
Land forming/laser grading ⁱⁱⁱ	ha	13,745	19,546	23,685	23,500	101
Drain – primary built ^v	km	6	1.1	0	2	0
Drain – community built	km	4	1.4	0.6	1	60
Farm reuse systems installed ^v	no.	76	7	25	22	115
Drain – additional water diverted from regional drains ^{vi}	ML	0	0	0	0	-
Irrigation systems – improved ^{vii}	ha	14,217	20,050	24,145	24,000	101
Sub-surface water action						
New groundwater pumps – public installed	no.	0	0	0	0	-
New groundwater pumps – private installed	no.	9	0	1	1	100
Increased volume of water able to be pumped	ML	1,827	0	75	75	100
Planning for works action						
Whole farm plans	no.	212	256	223	185	120

i. Many actions primarily aimed at achieving salinity targets contribute to other targets, such as those for water quality and biodiversity. Investment shown is for those funds dedicated primarily to achieving salinity outcomes.

ii. Corporate Plan targets are adjusted as funding is confirmed.

iii. This area is established from the area that has been put under whole farm plans for the year including modernised whole farm plans and achievements from the Farm Water Program of 4,304 hectares.

iv. Approximately two kilometres of new drains are under construction with only one kilometre formally completed.

v. Reuse dams allow for the collection and re-irrigation of high nutrient run-off, reducing the water and nutrient loads leaving the farm. Numbers decreased in 2010-11 as incentives were no longer offered and only delivered through the Farm Water Program.

vi. High flow diversion. None completed because of no demand and previous dry conditions.

vii. Improved systems include laser grading, automatic irrigation and micro-irrigation. Figure includes improved irrigation activities as a result of the Farm Water Program.

2011-2012 performance

Implementation of the Shepparton Irrigation Region Catchment Implementation Strategy continues to progress despite the region enduring widely varying climatic conditions and changing funding priorities. Reduced commodity prices and an inability to meet community demand for surface drainage and related salinity control have impacted on the region. The return of high water tables has increased demand for salinity control and improved irrigation.

The emphasis again was to link implementation of the strategy with various modernisation programs, especially the Northern Victorian Irrigation Renewal Program and the Farm Water Program, to optimise opportunities presented by changes to delivery systems. This is principally based around the Whole Farm Plan Program although connection to salinity infrastructure has become even more critical.

Landholder participation in the Whole Farm Plan Incentive scheme was maintained and extended to maximise the benefits of the remodeled regional irrigation delivery system.

The Farm Water Program continued to roll out in 2011-12. Almost 60 per cent of the 148 Round 1 Farm Water Program projects have been completed. Round one projects saved 18 gigalitres of water with nine gigalitres already transferred to the Australian and Victorian government for environmental purposes. All Round 1 projects are expected to be finished by March 2013. An additional 237 projects have been funded through Round 2 of the program, which received funding from the Victorian Government On-Farm State Priority Project (\$43 million) and the Australian Government's On Farm Irrigation Efficiency Program (\$21 million). Total Round 2 water savings are expected to be 32 gigalitres with at least half transferred to the Australian Government or the Goulburn Broken CMA for environmental purposes. By June 2012, about 500 megalitres of water was transferred to the Commonwealth Environmental Water Holder and 1,000 megalitres was transferred to the Goulburn Broken CMA.

Groundwater and Salinity Management Program

One new shallow private groundwater pump was completed. No pumps were upgraded. Seventy-five ha of irrigated land was protected from high watertables.

Groundwater investigations were completed at six sites. Two sites were suitable for private pumping. There are no investigations in progress or on the waiting list.

The Millewa Nature Conservation Reserve has been the focus of a monitoring program in 2011-12 to try to determine if the sharp rise in watertable levels in the reserve in late 2010 will impact on the health of vegetation in the reserve. Findings from the monitoring will be available early in 2012-13.

Surface Water Management Program

No primary surface water management schemes were designed because most primary drain designs under the current strategy have been completed. The only detailed design work not completed is Stage 4 of Murray Valley Drain 11.

One kilometre of primary drains were built. Works have also progressed in the Stanhope Depression Drain Stage two, Mosquito Drain 40 and Murray Valley Drain 11. Significant progress was also made on several outstanding land acquisition matters.

The Muckatah 22P Community Surface Water Management System has been completed, adding 0.6 kilometres in length, servicing 380 hectares and involving four landowners in total.

Initiation of the Muckatah 19 & 21 P Community Surface Water Management Systems has begun with two meetings held with each group to determine interest in the project. These two catchments were impacted upon in the March 2012 floods, which has sparked interest in community surface water management within the area. Further progress to survey and design will be dependent on available funds.

Following on from the March 2012 floods, the Community Surface Water Management program has seen a sharp increase in the level of enquiries from landowners. An expression of interest process has been initiated and the ability of the program to respond to this during 2012-2013 will be dependent on funding.

Survey and design plans have been completed and approved for the Muckatah 2/3, 3/8 Community Surface Water Management Systems. Located north of Numurkah, these systems, 11.9 kilometres in length, will service 16 landholders and more than 1,600 hectares. Construction will be dependent on continued landowner support and available funds.

Farm and Environment Program

Outputs delivered in the Shepparton Irrigation Region are shown in Appendix 3 (page 114). Figures in this section do NOT include the part of the Farm Water Program that is outside of the Shepparton Irrigation Region.

Whole farm plans on 223 properties covering 23,492 hectares were completed, including 102 'revised modernised' plans, bringing the total number of whole farm plans under this incentive to 4,111 covering 294,577 hectares or 93 per cent of the irrigated area.

Onground works funded through Round 1 of the Farm Water Program include reuse systems, laser grading, improved irrigation scheduling and farm channels and pipes and risers to achieve fast flow irrigation. Works completed to date include: lasering (1,696 hectares); drainage (752 hectares); fast flow & automation (752 hectares); farm channel reconnection, fast flow & automation (210 hectares); pipe & riser, fast flow & automation (3,152 hectares); irrigation scheduling (157 hectares); and farm channel upgrades (6.1 kilometres).

No reuse systems or automatic irrigation systems were installed under the incentive scheme delivered under the Farm and Environment Program. However many systems are being delivered through the Farm Water Program

Twenty-four landholders were supported to undertake environmental and tree growing projects Erecting 22.8 kilometres of fencing, protecting 50 hectares of remnant vegetation and enhancing 17 hectares of remnant vegetation. A wetland of 4.6 hectares was protected and 65 hectares of new vegetation established across the Shepparton Irrigation Region, which including 23 hectares of direct seeding.

Environmental site assessments completed across the Goulburn Murray Irrigation District for Northern Victorian Irrigation Renewal Project comprised:

- 802 assessments on meters
- 130 assessments on channel regulators
- 117 connections' business cases; including 649 individual assessments (channel decommissioning, culverts, road crossings, subways, meters, regulators)

Collaborations and communities

The Sustainable Irrigation Program Advisory Group held its inaugural meeting in April 2012. The Group, involving community representatives with partner agency support, is making appropriate links between the community, strategy and implementation, providing feedback on Sustainable Irrigation Program priorities to reflect potential budget implications, input to the implementation of the Farm Water Program implementation and Goulburn Broken CMA and irrigation modernisation programs linkages. Alignment with local government within the Shepparton Irrigation Region was strengthened by direct representation on the Group and Goulburn-Murray Water's water services committees.

A Strategic Environmental Projects technical steering group continued to oversee delivery of the Groundwater and Salinity Management Program and has now been absorbed into the Groundwater and Salt Working Group Coordination Committee.

The Sustainable Irrigation unit worked closely with the Northern Victorian Irrigation Renewal Project and other modernisation activities to ensure that water saving projects are consistent with and complementary to the implementation of the Shepparton Irrigation Region Catchment Implementation Strategy. The Sustainable Irrigation Program Manager represented Goulburn Broken CMA on various Northern Victorian Irrigation Renewal Project committees, including the Technical Advisory Group, the Environmental Technical Advisory Committee, and the Salinity Impact Technical Advisory Committee.

The Sustainable Irrigation Program continued to engage the Greater Shepparton City Council, Campaspe Shire Council and Moira Shire Council through meetings with each council, Senior Combined Partners Meetings and Municipal Catchment Coordinator Steering Committee meetings.

The Goulburn Broken CMA provided 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.

A total of \$35,000 of Goulburn Broken Small Community Education and Awareness Grants were funded through the Sustainable Irrigation Program, supporting six projects.

The Farm Water Program Consortium includes members from a range of partners including: North Central and North East CMAs, Northern Victorian Irrigators Inc., Northern Victorian Irrigation Renewal Project, Department of Sustainability and Environment, Department of Primary Industries, Goulburn Murray Water, Murray Dairy and Dairy Australia.

Regular meetings between the leadership of regional stakeholders works to ensure a common understanding of regional issues now includes local government CEO's and mayors and the Goulburn Valley Water CEO and Chair.

Planning and responding (includes research and development)

The Shepparton Irrigation Region Catchment Implementation Strategy 2005-2006 review and a background report for 2006-2007 to 2010-2011 for the Implementation Plan was completed.

Protecting environmental assets in the Shepparton Irrigation Region and adapting to a variable climate with variable seasonal conditions continues to be the focus of the Groundwater and Salt Management Program. The Salt and Water Balance 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.

Cost-sharing partnerships with Department of Sustainability and Environment, Northern Victorian Irrigation Renewal Project and Goulburn-Murray Water for research and development projects continue to evolve, helping to compensate for declining federal funds.

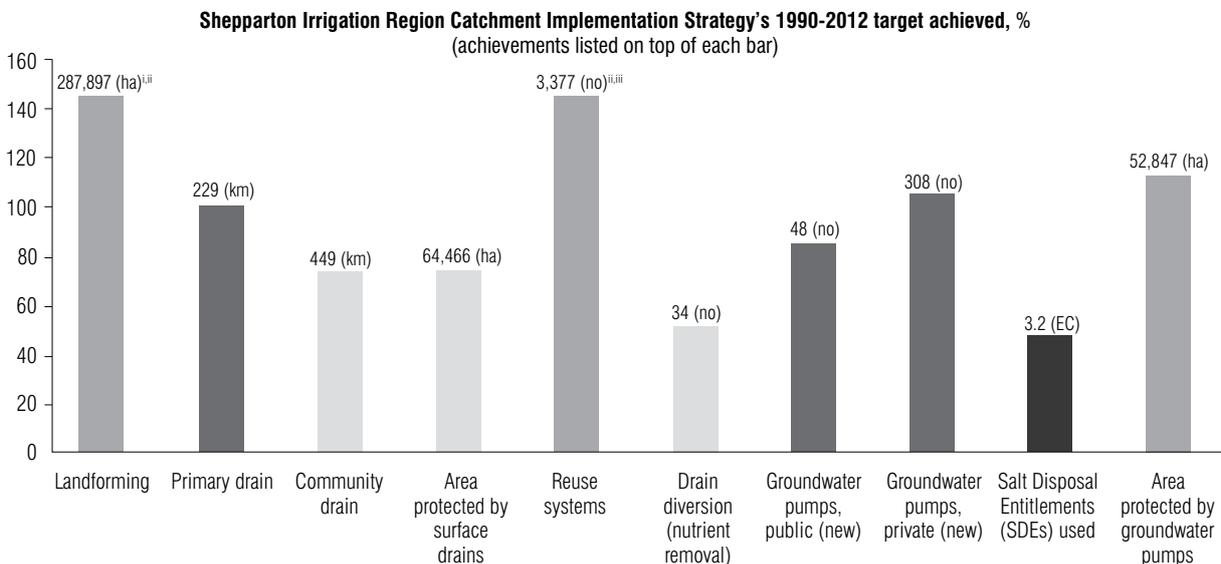
The intensive groundwater and drain monitoring program continued and the annual watertable depth and nutrient discharge reports were published.

The review of water quality and groundwater monitoring across the Goulburn Broken Catchment progressed to Stage two, where individual monitoring programs further reviewed issues involved with rationalisation and efficiencies of the programs.

Input into Victoria's 2009-10 annual report to the Murray-Darling Basin Authority's Basin Salinity Management Plan was completed.

Several Irrigation Drainage Memorandum of Understanding meetings were held throughout the year as the committee addressed two high priority pieces of work flowing on from the 2010 review. Work was

Long-term strategy implementation progress



i. Landforming: includes 4,304 hectares delivered under the Farm Water Program in 2012

ii. 2010-11 figures for landforming and reuse systems were incorrect in the 2009-10 annual report: correct (and incorrect) figures are 229,826 (229,132) and 3,337 (3,325) respectively

iii. Includes 2,712 systems 1990-91 (pre-scheme)

completed on a simplified risk assessment and catchment prioritisation tool. Work on the amalgamation of the two Catchment and Asset Operational Plans was deferred.

The 2010-11 report on nutrient loads from Shepparton Irrigation Region surface drains was completed. Although it showed a dramatic rise in nutrient export, the five year average was still well within the target and, despite the return of long-term average rainfall, was still well below the levels experienced in the 1990s.

Farm works were accelerated by the Commonwealth On-Farm Irrigation Efficiency Program and Victorian On-Farm State Priority Project funding to the Farm Water Program, which has increased the focus on works, generating improved farm water management and savings. Key works include reuse systems, fast flow irrigation, pipe and riser irrigation, reuse systems and pressurised irrigation scheduling systems. These works will accelerate improved land management practices on irrigation properties, which will help reduce groundwater access, qualling, onlinisation and waterlogging on farms.

Regional infrastructure (public drains and public groundwater pumps) is behind schedule due to revised priorities and a significant decline in government investment.

The Shepparton Irrigation Region community's Foodbowl Modernisation project, which began implementation in 2008 through the Northern Victorian Irrigation Renewal Project, 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 and was once again well received by the Murray-Darling Basing Authority.

Catchment condition

Although risks of land salinisation and waterlogging have increased due to wetter conditions, these risks have generally declined since 1990 because of:

- government supported salinity management works, particularly in the early 1990s, including surface water management projects (that result in less water going through to the watertable) and groundwater pumping projects (that have the effect of lowering the watertable)
- complementary government-supported water quality and water savings works that have water-use efficiency and often, therefore, salinity benefits; for example, irrigation delivery infrastructure through the Foodbowl Modernisation project from 2008 means less water is able to go through to the watertable.

What's next?

The operational priority is to continue integrating farm and catchment programs with irrigation modernisation and the Farm Water Program, which requires working with partner agencies, so that salinity management objectives are also met as works proceed.

The three-year Shepparton Irrigation Region Salt and Water Balance Project is assessing how a changing climate and reducing or changing irrigation allocations and water availability impacts on the shallow watertable. The project includes the connection between irrigation, high watertables and salinity levels and implications for strategies.

The impact of the Murray-Darling Basin 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. This may require projects to increase landowner awareness and understanding of opportunities that arise from changing landuse and farming systems.

Case study

On farm works reinvigorate region

Modernisation of the irrigation network and funding for on-farm efficiency works are a "blessing" for Goulburn-Murray farmers, according to Katunga's Bill Gread.

Mr Gread received funding through Round one of the On-Farm Irrigation Efficiency Program (OFIEP) to carry out laser grading, fast flow and automation works on 18.2 hectares of land at his 172 hectare Katunga cropping operation.

The Australian Government's \$300 million OFIEP assists irrigators in the southern connected system of the Murray-Darling Basin to modernise their on-farm irrigation infrastructure while returning at least half the water savings to the environment.

A consortium of Goulburn Murray Irrigation District organisations, led by the Goulburn Broken, secured \$21 million from the first round of the OFIEP to fund 76 projects.

Mr Gread said he had already started extensive lasering and channel work on his farm, which he bought six years ago, when funding became available through the OFIEP. "The place was pretty run down when I bought it so I got to work on the re-use dam, white-rocking some of the channels, earthworks and getting rid of some of the bays in some parts of the farm," he said.

In the meantime modernisation work on nearby channels had been carried out as part of the Northern Victoria Irrigation Renewal Project.

Mr Gread said he recognised that the OFIEP funding could provide him with the opportunity to carry out on-farm improvements that complemented the irrigation network modernisation works. "Through the connections upgrade, I'd gone from getting five or six megalitres through the wheel to 20," he said. "Instead of wasting days watering – a real waste of time, water and money – it meant I could water in hours.

Mr Gread said the Australian Government funding had allowed him to carry out work that would have otherwise been delayed for years. "All those people who pulled together this modernisation work and extra funding for on-farm work, well I reckon they deserve a lot of recognition and respect. This work is completely re-invigorating the region, it's given us all a new lease on life."

Investment area 2 – River and wetland health and floodplain management

Compiled by: Wayne Tennant, Simon Casanelia, Geoff Earl, Mark Turner, Keith Ward, Meegan Judd, Tim Barlow and Jo Wood

Background

Four highly connected investment areas are reported in this section:

- 2a Environmental flows
- 2b Riparian and instream habitat and channel form
- 2c Water quality (nutrients) in rivers
- 2d Floodplain management.

River health and floodplain management, in Victoria, is the responsibility of CMA's and Melbourne Water, as described in Part 10 of *The Water Act, 1989*.

The Goulburn Broken Regional River Health Strategy 2005-15 is the first attempt to combine all elements of river management under one umbrella. Actions focused on improving the condition of rivers, floodplains and wetlands will help achieve the Healthy Rivers, Healthy Communities vision set in 2003, as stated in the regionally and ministerially endorsed Goulburn Broken Regional River Health Strategy:

"Healthy rivers, streams, wetlands, floodplains and adjacent land that support a vibrant range and abundance of natural environments, provide water for human use, sustain our native flora and fauna and provides for our social, economic and cultural values."

In 2009-10 the Goulburn Broken CMA developed an addendum to the Goulburn Broken Regional River Health Strategy to guide investment over the following three years. This addendum, based on guidelines developed by Department of Sustainability and Environment, reviewed achievements since 2004, considering programs, policies and environmental factors that affect program delivery and the strategy. The vision developed for the 2003 Goulburn Broken Regional River Health Strategy was retained in this addendum. The Addendum guided river health programs, funding and implementation, in the ensuing years (2010-11, 2011-12 and 2012-13). A second generation Goulburn Broken Regional Waterway Strategy will be developed in 2012-13, on which close links will be made to the new Regional Catchment Strategy.

Rivers, floodplains and wetlands are highly valued for many environmental, social and economic reasons. They underpin our livelihoods (providing water for agriculture, commercial and domestic uses), contain significant flora and fauna habitat, have high recreational and aesthetic values, and are often central to the culture of Indigenous Australians. The water generated in the Goulburn Broken Catchment provides major benefits for Victoria and beyond, providing 11 per cent of the Murray-Darling Basin's water resources despite covering only two per cent of its area.

Resource condition targets for river condition listed in the Goulburn Broken Regional River Health Strategy act as reference points for measuring progress towards achieving the above vision. These include:

- 350 kilometres of river maintained in excellent or good condition
- ecological flow objectives met in high value reaches
- nutrient loads reduced or improved
- riparian condition protected or enhanced along 550 kilometres of river
- instream habitat enhanced or reinstated along 140 kilometres of river.

Government investmentⁱ, \$000

2009-10 ⁱⁱ	2010-11 ⁱⁱⁱ	2011-12	2012-13 ^{iv}	Trend
12,398	5,599	5,430	3,896	↓

- i Includes all three investment areas under River and wetland health.
- ii Includes \$3.5 million for fire recovery for 2009-10 activities.
- iii From 2010-11, investment shown is for core funding. Prior to 2010-11, figures also included investment from short-term, opportunistic sources such as the Drought Employment Program and proceeds from the sale of part of the Water Quality Reserve.
- iv Forecast based on funding advice at August 2012.

Major strategic references

Common to all investment areas:

- Goulburn Broken Regional River Health Strategy 2005, Addendum 2010
- Victorian River Health Strategy 2002

Relevant to specific investment areas:

Environmental flows and water supply

Victorian Government White Paper: Our Water Our Future (2004)

- www.thelivingmurray.gov.au
- The Northern Region Sustainable Water Strategy
- The Barmah-Milewa Environmental Management Plan (MDBA 2005)

Riparian and instream habitat

- Victorian Government White Paper: Our Water Our Future (2004)
- Wetlands Strategy for the Goulburn Broken Catchment (Draft August 2003)
- Murray-Darling Native Fish Management Strategy
- Threatened Species Recovery Plans

Water quality (nutrients) in rivers

- Goulburn Broken Water Quality Strategy 1996-2016
- Review of Goulburn Broken Water Quality Strategy 1996-2016 (Brian Garrett and Associates 2001)
- Goulburn Broken Water Quality Strategy 1996-2016 review (2008)

Although no target was set for wetlands in the Goulburn Broken Regional River Health Strategy or its addendum, it is a priority for the second generation of the Strategy.

Many rivers and associated floodplains and wetlands flooded as a result of above average and unseasonal rainfall in 2010, 2011 and again in 2012. These events, which followed a prolonged period of drought and large scale wildfire, created a range of social and environmental issues. The floodwater provided many ecological benefits including the exchange of nutrients, sediments and carbon between the floodplain and river channel; improving riparian vegetation health; and stimulating native fish movement and breeding. However the floodwater also led to low dissolved oxygen levels, blackwater and fish deaths in a number of rivers throughout the Murray-Darling Basin, including the lower Goulburn River and the Broken Creek. The challenge for the Goulburn Broken CMA and the community is to make our river systems more resilient to extreme climatic conditions and external human pressures.

Climate change and river and wetland health

The River and Wetland Health and Floodplain Management Program's adaptive management framework includes increasing understanding of the condition of systems through monitoring and research. Understanding how systems respond to drought and intervention (such as delivery of environmental water) is critical to improving management.

The Goulburn Broken CMA supported the regional zonation project in 2010, furthering work originally commissioned by the Department of Sustainability and Environment, to help identify high-value river reaches across Victoria. Data generated by the project will be incorporated into the review of the Goulburn Broken Regional River Health Strategy and may assist locally in identifying important refuge for fish in a drying climate and areas suitable for reintroducing native fish species.

A further State-commissioned project being managed by the Goulburn Broken CMA is looking at the impact of climate change on aquatic ecosystem and river values, primarily focusing on water quality. The focus of Stage 2 of this project has been investigating the effect of riparian zones on water temperature and the changes to nutrient and sediment dynamics.

Environmental water delivery plans, event based intervention and other programs are developed with partner agencies through forums such as the River and Water Contingency Planning Group and the Regional Water Quality Forum.

Environmental flows

Environmental water, the environment's legal share of water called the Environmental Water Reserve, is a key element in protecting aquatic ecosystems and includes two types of water:

- water that is held in storage and actively managed to meet specific environmental needs (environmental entitlements)
- minimum river flows and unregulated flows made available as a result of rules on consumptive use (conditions on bulk entitlements and water licences, and caps on water use).

The Victorian Environmental Water Holder is responsible for holding and managing Victoria's environmental water entitlements. CMA's are responsible for determining the environmental water requirements of rivers and wetlands, developing and submitting seasonal watering proposals to the Victorian Environmental Water Holder for consideration and managing the delivery of environmental water, with the cooperation and support of partner agencies. This complements the Goulburn Broken CMA's roles as the caretaker of river health and as the provider of waterway, regional drainage and floodplain management services.

Partner agencies are responsible for allocating water resources, regulating river flow, delivering water, regulating water use, and servicing wastewater disposal. CMA's work with the holders of bulk entitlements and water licences to manage other environmental water.

Since the mid-1990s, State and Commonwealth Governments have progressively improved water management, including provision of water for environmental flows. Recent years of drought add to the urgency of this work.

In 2002, the Murray-Darling Basin Ministerial Council established The Living Murray Initiative, which aims to achieve a healthy working River Murray system. In the Goulburn Broken Catchment, this involves the Barnah Forest and the River Murray channel.

In the Victorian Government's 2009 Northern Victorian Sustainable Water Strategy, targets for environmental outcomes in the Goulburn River, Broken River and Broken Creek were set, along with associated water recovery targets. It contains a range of water management policy initiatives, such as carry over and crediting of return flows, to increase the flexibility and efficiency of environmental and consumptive water use.

The Goulburn Broken Regional River Health Strategy plans to improve river, wetland and floodplain health by determining and managing environmental water requirements, particularly in a number of priority wetlands and the Goulburn River, Broken River and Broken Creek.

Riparian and instream habitat and channel form

The riparian zone is critical to river health, providing litter and debris to the river system, filtering light and water, buffering streams from sediments and nutrients and influencing the conditions of the beds and banks of streams. Management of riparian zones includes the needs of the adjacent riverine floodplain. Individuals, communities and agencies protect river frontages and riparian zones by fencing, revegetating, and controlling weeds.

Instream habitat management increases the diversity of instream conditions by targeting high priority threatened aquatic fauna, by extending the potential range of species through the removal of barriers and by improving water quality.

Management of the channel form includes controlling the impacts of sedimentation on aquatic flora and fauna habitat in high priority areas and modifying instream complexity to create riffles, pools or slackwater habitats. The management of riparian and instream habitat and channel form is underpinned by programs such as environmental flows, water quality and broader riparian management.

Water quality (nutrients) in rivers

Water quality issues identified in the Goulburn Broken Regional Water Quality Strategy, 1996 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.

Over the last 12 months, water quality management has focused on protecting aquatic ecosystems from increased temperature and low dissolved oxygen as a result of warm-season flooding.

Elevated nutrients were identified as a high priority issue for water quality in the Catchment because of its 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 because phosphorus is a limiting factor in the development of toxic blue green algal blooms and aquatic weed blooms.

The 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 towards this goal.

The resource condition target set in 1996 is to reduce 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 it is associated with phosphorus reductions, are pursued if it is cost effective.

2011-12 performance – River and wetland health actions table and climate change activities

Actions 2009-10, 2010-11 and 2011-12

Action		From funds received through Corporate Plan				
		Achieved ⁱ			Target	% achieved
		2009-10	2010-11	2011-12		
Stock grazing action						
Fence wetland remnant	ha	8	78	0	8	0
Fence stream/river remnant	ha	n.a.	354	0	0	100
Fence stream/river remnant	km	63	93	26	36	72
Off-stream watering	no.	48	21	17	30	57
Nutrient-rich and turbid water & suspended solids action						
Stormwater management projects ⁱⁱ	no.	1	0	2	1	200
Instream & near-stream erosion action						
Bank protection actions	km	5.35	16	19	8	252
Instream and tributary erosion controlled	km	207	131	0	0	100
Changed flow-pattern action						
Water allocated ⁱⁱⁱ eg wetlands, waterways	ML	32,361	238,943	600,000	156,020	385
Weed invasion action						
Weeds – aquatic weeds controlled (managed)	ha	27	418	76	47	162
Habitat loss management						
Rock ramp fishway	no.	1	0	0	0	-
Fish barrier removal	no.	0	0	2	1	200
Establish Significantly Enhanced Aquatic Refugia	no.	16	0	20	25	78
Surface water action^{iv}						
Drain – primary ^v	km	6	1	0	2	0
Drain – community	km	4	1	0.6	1	60
Farm reuse system ^{vi}	no.	76	7	25	22	115
Drain – divert water	ML	0	0	0	0	-
Irrigation systems – improved ^{vii}	ha	14,217	20,050	23,685	23,500	101

- i Achievements include those from River and Wetland health investment areas (Environmental flows, Riparian and instream habitat and channel form and Water quality) and from complementary investment areas (Shepparton Irrigation Region salinity, Dryland salinity and Biodiversity). Some targets were not achieved because efforts were directed at the flood recovery effort. Overall achievements were down on previous years because the Drought Employment Program concluded. Outputs were funded by the Victorian Government (Large Scale River Restoration project, Fire and Flood Recovery Programs and Base Program) and the Australian Government (Caring for Our Country Program). Outputs delivered through each fund source are available from the Goulburn Broken CMA.
- ii Stormwater management projects are undertaken on a one-to-one funding basis with local government.
- iii Target cannot be set with any confidence because achievement is prone to extreme variation, being affected by seasonal conditions. 2009-10 achievement is over recorded by 5,110 megalitres.
- iv Surface water management enables the removal of excess rainfall run-off from irrigated lands, alleviating soil salinity. Nutrient loads collected by the drains are managed through drainage reuse and management plans, and monitored against the resource condition target.
- v Fencing and laneways are relocated along primary drains to control stock. Drains are also hydro-mulched and seeded to provide vegetative cover on bare batters.
- vi Reuse dams allow for the collection and re-irrigation of high nutrient run-off, reducing the water and nutrient loads leaving the farm. Numbers decreased in 2010-11 as incentives are no longer offered while the Farm Water Program is running.
- vii Improved systems include laser grading, automatic irrigation and micro-irrigation.

Climate change activities that relate to river health

The Goulburn Broken CMA participated in several projects that consider climate change and its impacts on river health and water quality:

- an investigation into the impact of climate change on water quality (a statewide initiative managed through the Goulburn Broken CMA in partnership with the Department of Sustainability and Environment, the Environment Protection Authority and other CMA's). Two project papers (case studies) are under development within this project:
 - Water quality ecological risk assessment – sediment and nutrient pulses.
 - Water quality ecological risk assessment – impacts on water temperature
- Support into the National Climate Change Adaptation Research Facility Project: "Predicting water quality and ecological responses to a changing climate: informing adaptation initiatives". On-going development of Seasonal Watering Proposals for rivers and wetlands (formally dry inflow contingency planning).
- River and Wetland Health staff have provided input into the Stathbogie Shire Council's project entitled "Strengthening Strathbogie in a Changing Climate" by providing comments on their papers and attending local workshops.

2011-12 performance – Investment area 2a – Environmental flows

2011-12 performance (outputs achieved against targets set as a result of funds received) On target

In 2011-2012 the Goulburn Broken Catchment experienced average to dry conditions between winter and summer, with widespread and heavy rainfalls in March and April. As a result the Goulburn River experienced a number of natural freshes, bankfull and overbank flows and the Broken Creek experienced a greater than 1 in 100 year flood event. The Broken Creek flood was accompanied by a blackwater event with low dissolved oxygen and some fish deaths. Many wetlands across the catchment were inundated in 2010 from above average and unseasonal rainfalls and continue to hold water including many low lying wetlands in Barmah-Millewa Forest. Although welcome after a long drought, prolonged inundation can temporarily or permanently alter wetland vegetation communities by favouring species adapted to extended inundation, reducing the diversity and structure of habitat. Therefore, a drying cycle will be important and promoted where possible in these wetlands in summer and autumn 2013.

A total of 599 gigalitres of Environmental Water was delivered in 2011-2012 to maintain minimum flows in the lower Goulburn River and lower Broken Creek and provide a spring fresh in the lower Goulburn River, and to ensure success of waterbird breeding events in the Barmah-Millewa Forest (see table below). The environmental water was delivered in accordance with Victorian Environmental Water Holder processes and with the assistance and cooperation of partners.

Works and operations

A total of 155 gigalitres of The Living Murray and Commonwealth environmental water was used in the lower Goulburn River from October to January to provide increased minimum flows and in November a spring fresh. A second fresh was released in December to provide water to the lower Murray River. Following Inter-Valley Transfers in January and February, flood flows in March, and Eildon pre-releases between March and May, 40 gigalitres of Commonwealth environmental water was used to slow the drop in river levels and then to maintain desirable minimum flows. These environmental releases in combination with natural flows resulted in the majority of the eight priority environmental flow components identified in the 2011-12 Seasonal Watering Proposal were met with the exception of some minimum flows for short periods.

The Bulk Entitlement (Eildon-Goulburn Weir) Conversion Order 1995 provides for the release of up to 80,000 megalitres in the month of November under certain inflow and release conditions. The provision was created to improve the watering of wetlands along the Goulburn River between Lake Eildon and the Goulburn Weir. The provision has only been triggered once before in 1996 and the Departmental Secretary decided a release was not required in that year. The provision was triggered for the second time in November 2011. However, it is unclear what flow rates downstream of Lake Eildon are required to inundate wetlands without impacting on public and private assets. Therefore, the Goulburn Broken CMA coordinated a trial release of the environmental water down the Goulburn River from Eildon. Flows were increased from 5,000 megalitres per day to 7,000 megalitres per day for two days from the 16th to the 18th of November. Flows were then increased to 9,000 megalitres per day from the 21st to the 24th of November. Flow and water elevation information was collected at 13 locations along the river. This information has been analysed along with Light Detection and Radar and other spatial information to better understand the relationship between wetlands, private land and river flows.

On Broken Creek, Azolla problems were minimal in 2011-2012, and flows in the Broken Creek were successfully used to limit the occurrence of low dissolved oxygen. Murray unregulated flows, Goulburn Water Quality Reserve, Inter-Valley Transfers and Commonwealth environmental water were all used.

In 2011-2012 Barmah-Millewa Forest experienced four major flood peaks in winter and spring followed by a highly unseasonal 60,000 megalitres per day flood peak in early March. Despite these natural flood peaks a total of 428 gigalitres of Environmental Water was delivered to Barmah-Millewa Forest in 2011-2012. The releases were made to maintain continuous wetland flooding to support waterbird breeding by bridging natural flood peaks that have otherwise become isolated because of river regulation. As a result a total of six colonial waterbird species successfully bred, leading to approximately 5,400 fledged colonial waterbirds. In addition, 24 non-colonial waterbird species also successfully bred.

Environmental water used during 2011-12ⁱ

Quantity, ML	Timing	Source
Water generated within and managed and used WITHIN the Goulburn Broken Catchment		
Goulburn River		
134,072	October to January 2012	Commonwealth Environmental Water
17,652	November 2011	Additional passing flows (Eildon-Goulburn Weir Bulk Entitlement)
Broken Creek		
9,189	October to December 2011 ⁱⁱⁱ	Goulburn Water Quality Reserve
10,366	December 2011 to February 2012	Commonwealth Environmental Water
Barmah-Millewa Forest		
283,100	September to May 2012	Barmah-Millewa EWA
120,000	September to May 2012	The Living Murray EWA
10,000	September to May 2012	Murray Flora & Fauna Entitlement (Vic)
15,000	September to May 2012	Adaptive Environmental Water (NSW)
Water generated within and managed and used DOWNSTREAM of the Goulburn Broken Catchment		
To Murray River via Goulburn River		
53,352 ⁱⁱ	January to February 2012	Inter-Valley Transfers
61,038 ⁱⁱ	October to January 2012	The Living Murray allocation
Broken Creek		
9,189	October to December 2011, April to May 2012	Goulburn Water Quality Reserve
1,477 ⁱ	August to October 2012	Murray unregulated flows
6,009 ⁱ	January to February 2012	Goulburn Inter-Valley Transfer to Murray

ⁱ Flows passed through Broken Creek to help maintain water quality, reducing the need to deploy environmental entitlements.

ⁱⁱ This water was managed to help maintain minimum passing flows and to create a fresh in the lower Goulburn River.

Building on previous delivery of environmental water

With the assistance of partner organisations, the Goulburn Broken CMA has delivered and managed environmental water since early 2000 to maintain and enhance ecological values of rivers, floodplains and wetlands. The table below shows environmental water delivered by the Goulburn Broken CMA since 2000-01.

Wetland or stream	Quantity, ML											
	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Barmah	165,000 ⁱ (341,000 ⁱⁱ)		3,165 ⁱ (3,165 ⁱⁱ)			256,500 ⁱ (513,000 ⁱⁱ)		0 ⁱ (125 ⁱⁱ)	300 ⁱ (300 ⁱⁱ)	1850 ⁱ (2,370 ⁱⁱ)	184,500 ⁱ (428,000 ⁱⁱ)	
Black Swamp								90	40	80		
Brays Swamp	260		220		266							
Broken Creek						Goulburn River Water Quality Allowance deployed						19,555
Broken River											24.2	
Doctors Swamp										40 (trial)		
Goulburn River											26,670	151,724
Kinnairds Swamp								426		400		
Moodies Swamp								50				
Reedy Swamp								544	500	300		

i Victorian share of the Barmah-Millewa and The Living Murray environmental water accounts.

ii Total volume delivered from the Victorian and NSW shares of the Barmah-Millewa and The Living Murray environmental water accounts.

Collaborations and communities

Barmah-Millewa Forest collaborations included:

- cross-state water management between New South Wales and Victorian agencies and the Murray-Darling Basin Authority (including 21 weekly teleconferences during the active water management period)
- extensive media relating to waterbird breeding and water quality management.

Goulburn Broken CMA is represented on the Northern Victoria Irrigation Renewal Project's Environmental Technical Advisory Committee.

The Goulburn Broken Wetland Management Group continued to provide community and partnership input to the management of wetlands in the Catchment.

A presentation was made to River Health Graduate Certificate students in relation to river health issues faced by the community along the Goulburn River system.

Support was provided to the Australia-China Centre on Water Resources Research program at the University of Melbourne.

The Goulburn Broken CMA hosted Dr Wang, Vice Dean of Tsinghua University in Beijing. Dr Wang was a guest of the Australia-China Centre on Water Resources Research program at the University of Melbourne.

Wayne Tennant participated in a water culture trip to China. The project was funded by the Department of Foreign Affairs and Trade, Australia through the project Linking Australia and China - a "Bridge of Water Culture". The tour included workshops at the China Three Gorges Corporation, participation at a forum at the International Poverty Reduction Centre China and field visits to Three Gorge Dam and Dujiangyan irrigation system.

Direct participation (planning, presentations, financial support) was provided to a four-day Floodplain Ecology Course that focussed fieldwork on Barmah Forest, and was attended by 25 community, consultant and agency people.

The Goulburn Broken CMA is also represented on several steering committees and planning groups related to planning and management of environmental water, including the State Environmental Water Reserve Officers Network, Northern Victorian Environmental Water Planning Control Board, State Wetland Working Group, Red Gum Expert Scientific Panel, National Water Commission's optimising native fish habitat

project, Barmah-Millewa Icon Coordinating Committee, Barmah-Millewa Technical Advisory Group, Barmah-Millewa Consultative Reference Group and Barmah-Millewa Operations Group.

The Goulburn Broken CMA supported a number of community engagement forums to assist in the delivery of onground works and to involve communities in the planning of community events:

- Hollands Creek Demonstration Reach project
- King Parrot Creek Community Planning Group
- Seven Creek (upper works planning Group)
- Large Scale River Restoration Steering Committee.

This year saw the formation of two Environmental Water Reserve Community Advisory Groups (one for the Broken system, one for the Goulburn River). The specific role of the groups is to provide input into the development of annual water planning, to provide advice on what is happening along rivers, creeks and in wetlands, particularly in response to flows, and to provide feedback from the community on environmental water management issues.

Environmental water planning and responding (includes research and development)

The Goulburn Broken CMA prepared 2012-13 seasonal watering proposals for the Goulburn River, Lower Broken Creek and Goulburn Broken Wetlands which have been incorporated into the Victorian Environmental Water Holders Seasonal Watering Plan.

Input into data collection for the Victorian Environmental Flow Monitoring and Assessment Program continued. The project which is undertaken across the State on eight priority waterways includes sites on the Broken and Goulburn Rivers, and the Broken Creek. Monitoring in 2011-12, included fish, and macro-invertebrate sampling and re-surveying of river cross-sectional profiles.

Variables influencing river red gum and giant rush responses to flooding regimes in Barmah-Millewa Forest were monitored by the Commonwealth Scientific and Industrial Research Organisation (CSIRO).

Light detection and radar and aerial photography data was analysed to identify areas of private land along the mid Goulburn River at risk from inundation from high river flows, and the hydrological connection of wetlands along the floodplain to the Goulburn River. The work will help inform how environmental water can best be delivered down the mid Goulburn River to inundate wetlands on the floodplain without impacting on private and public assets.

Real-time (website accessible) water quality monitoring of the Goulburn River and Broken Creek continues. This monitoring assists learning about the effects of overbank flows and the impacts on dissolved oxygen levels on the river.

Input into the eWater Cooperative Research Centre Northern Application Project was completed. This project investigated how off-channel habitats are affected under various water supply scenarios. The project involved the trialling of a number of eWater Cooperative Research Centre's modelling support tools to better understand the ecological benefits of floodplain inundation, and how such benefits might be more readily achieved by enhancing natural flows with additional releases and diversions.

Papers were accepted in refereed journals, including *Wetlands* (Arthur, A.D., Reid, J.R.W., Kingsford, R.T., McGinness, H.M., Ward, K.A. and Harper, M.J. (2011) Breeding Flow Thresholds of Colonial Breeding Waterbirds in the Murray-Darling Basin, Australia. *Wetlands* 32(2): 257-265. ISSN 0277-5212. DOI 10.1007/s13157-011-0235-y.

Other papers which the Goulburn Broken CMA staff contributed to, include:

- Protection of River Health and Water Quality Following Wildfires in the upper Catchment of the Goulburn River, Victoria, AWWA Conference 2011, Wangaratta
- Wildfires in the upper Catchment of the Goulburn River, Victoria - Monitoring and Protection of River Health and Water Quality, IWA Conference 2011, Rotarou New Zealand
- Quantifying the benefits of on-ground works in the Upper Goulburn Catchment, 6th Australian Stream Management Conference – 'Managing for Extremes', Canberra

- Where did all the Cabomba go? Impacts of flooding and stream turbidity on the presence of Cabomba in the Broken River, Victoria. 6th Australian Stream Management Conference – 'Managing for Extremes', Canberra
- Efficacy of the Index of Stream Condition method to measure riparian vegetation response to the Black Saturday fires. 6th Australian Stream Management Conference – 'Managing for Extremes', Canberra
- Wildfires in the upper Catchment of the Goulburn River, Victoria - Monitoring and Protection of River Health and Water Quality Australian Water Association Water Journal & Water Directory.

Environmental watering plans, including recommendations on water management, were prepared for Black Swamp, Doctors Swamp, Kinnairds Swamp, Reedy Swamp and One Tree and Two Tree Swamps (combined) following receipt of funding from the State Government.

The scoping of works to help deliver environmental water to key wetlands in the Shepparton Irrigation Region continued.

The ecological response of waterbirds, frogs and aquatic vegetation to flooding was formally monitored at key wetlands across the Catchment.

Fish communities supported by lower Goulburn River floodplain wetlands were investigated to inform their management and the delivery of environmental flows.

The North East and Goulburn Broken CMAs are working collaboratively with local communities to identify opportunities to efficiently deliver environmental water to wetlands.

2011-12 performance – Investment area 2b – Riparian and instream habitat and channel form

2011-12 performance (outputs achieved against targets set as a result of funds received) On target

This element of the river health program provides a focus on river, stream and wetland habitats. Specifically three key themes form this investment area: protection of riparian and frontage lands, protection and enhancement of instream diversity and maintenance of the channel.

The Goulburn Broken CMA partnered the community and government agencies in a range of natural resource and community based activities, including fencing, revegetation, pest plant and animal control, resnagging, monitoring and employment.

A major focus of works to improve instream habitat was investigated and commissioned on the Goulburn River under the Large Scale River Project "Goulburn – Icon River". This project saw the analysis of habitat conditions in large reaches of the Goulburn, which enabled an assessment of reaches with habitat deficiency. Woody debris was then installed in a way which represented areas of good habitat. This project was integrated into the Environmental Water Program and Threatened Species Monitoring Initiatives.

Ongoing monitoring projects included:

- 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
- assessing fish populations of the Lower Goulburn River
- monitoring of Macquarie Perch populations in the Sevens, Hughes, Hollands and Seven Creeks

A new project initiated in 2011-12 is an assessment of the performance of Passive Integrated Transponder Tag readers on the Broken Creek.

The Goulburn Broken Catchment CMA commenced a regional Flood Employment Program in response to damage during regional flooding in the March 2011. Partners involved in the project include the Cornella Local Area Plan Implementation Committee, Department of Primary Industries and Campaspe Shire Council. The Program provided valuable employment for local farmers in the region while rehabilitating damaged natural assets and infrastructure. This delivered more than 90 works projects involving 28 landowners including 57 flood damaged creek crossings repaired, 13 kilometres of damaged fencing removed and replaced, 23 hectares of weed control and five hectares of revegetation. A field supervisor was appointed, supported by three staff.

Works and operations

Onground works were delivered through a range of programs including the Large Scale River Restoration Project, the Healthy Waterways Initiative, Recreational Fishing Grant Program, Flood Recovery Program and the Flood Employment Program (Victorian Government) and Caring for Our Country (Australian Government). Refer to the outputs table on page 114 for a list of onground achievements .

The statewide Securing Priority Riparian Areas Project, which began in January 2011 and continued into 2012, aims to improve management through better extension and engagement, more rigorous management agreements, and increased compliance with Crown water frontage licence conditions (see progress in table below).

Securing priority riparian areas, Goulburn Broken Catchment, January to June 2012

Quantitative outputs (additive)	Total
New signed riparian management agreements that encompass both Crown and freehold land (no.)	13
New signed riparian management agreements on freehold land only (no.)	23
New signed riparian management agreements on Crown land only (no.)	6
Freehold area under riparian management agreement (ha)	86.1
Waterway under riparian management agreement (km)	35.2
Landholders with site inspections who declined to be part of the project (no.)	89

Collaborations and communities

Crown water frontages continue to be reviewed to improve management practices. The project, managed through a regional agency committee involving Goulburn Broken CMA and the Department of Sustainability and Environment, moved across to the Securing Priority Riparian Area Project in January 2012 and is starting to develop a compliance component.

The Australian Government's Caring for Our Country initiative enabled work to continue on the control of Cabomba (*Cabomba carolinina*), a 'Weed of National Significance', at Lake Benalla and in the Broken River. Similar to late 2010 and early 2011, floods in March 2012 once again impacted on the delivery of the program. However, the drawdown and then increased turbidity from high flows has resulted in a significant decrease in abundance and distribution of Cabomba (See case study on page 96).

The Goulburn Broken CMA and partner agencies attracted funds to address 'Weeds of National Significance' and pest animals in the Barmah Wetland to protect the Ecological Character of this Icon site. The project is a partnership between Yorta Yorta Nations Aboriginal Corporation and Parks Victoria. The project was again impacted by regional flooding limiting access to undertake works. Despite this pest plant and animal management targets were exceeded.

Caring for Our Country has also supported the removal of "Weeds of National Significance" and the identification and cataloguing of Aboriginal artefacts in spring and alpine wetlands of the upper Goulburn River catchment (see case study on page 21). This project is supported by the Taungurung Clans Aboriginal Corporation. The project is meeting its targets with 265 ha of "Weeds of National Significance" treated in 2011-2012. In addition, a stone tool workshop day was held with community (landholders), local Landcare, the Strathbogie Conservation Management Network and Taungurung Clans to share Traditional Ecological Knowledge amongst the attendees. The day was a great success with over 50 people in attendance from across the region. Two archaeologists were also engaged to assist on the day to provide advice and interpretation regarding the artefacts that had been located in the region by local landholders.

The Goulburn Broken CMA supported State-related activities, including the Securing Priority Riparian Areas project, works monitoring and the populating of the Aquatic Value Identification and Risk Assessment database that contains information on values and threats within

individual management units and reaches in the Catchment. It will be used to inform the next version of the Regional River Health Strategy, which is currently under development.

Due to strong community interest the Goulburn Broken CMA re-released the 'Fishes of the Goulburn Broken Catchment, a guide to the native and alien fish species of the Goulburn Broken Catchment' booklet.

The Goulburn Broken CMA continued to support the Greater Shepparton City Council with the RiverConnect project.

Works continued at Tahbilk Wetland to secure and protect the threatened Freshwater Catfish population. The project initiated in 2011-12 included modifications to crossings to enhance fish movement, resnagging, installation of Passive Integrated Transponder tag readers and project signage. This project has good support from landholders, Goulburn-Murray Water, the Department of Sustainability and Environment and the Arthur Rylah Institute.

The Goulburn Broken CMA, the King Parrot Creek community and agency partners developed a cooperative arrangement to protect and enhance the local catchment. This has led to the establishment of a project Working Group, with a range of implementation and community actions being planned.

A Flood Employment Program was established in the western portion of the Catchment, following the Victorian Government's support for the initiative. The program has delivered considerable onground works with the support of the local community through the Cornella Local Areas Plan Implementation Committee. The program employs primary producers and rural workers in fencing and repairing riparian areas, cleaning up flood debris and rubbish and controlling weeds. The Commonwealth Government, through Caring for Our Country also supported this initiative.

Planning and responding (including research and development)

Following widespread flooding in the Broken Creek system, significant resources were diverted to support the Incident Control Centre and undertaking recovery tasks such as capturing flood data, addressing community enquiries, assessing damage and threats to public and river health assets and starting recovery initiatives.

The significant flooding lead to a flood recovery bid being developed and submitted to the Victorian Government. The bid mainly covered the repair of fencing in the Broken, Boosey, and Wanalta Creek systems.

An investigation of fish populations supported by ephemeral and semi-permanent wetlands along the lower Goulburn River floodplain was undertaken.

The Goulburn Broken CMA completed development of a monitoring and restoration project brief for rehabilitating Winton Wetlands and, on behalf of the Winton Wetlands Committee of Management.

An investigation was commissioned into the feasibility of facilitating fish migration on the Broken River at Rupertsdale and Goulding's Weir together with Hollands Creek at Emu Bridge. Funding has been provided to implement approved works at these sites by the Recreational Fishing Licence initiative.

See also 'Environmental flows' section page 88 for information on Broken and Goulburn River monitoring.

Activities focused on aquatic threatened species

Goulburn Broken CMA maintains its commitment to support the monitoring of threatened species as an indicator of the performance of its programs and to supported related Recovery Plans and projects through implementation of Actions for Biodiversity Conservation. Activities included:

- ongoing monitoring of the condition of native fish communities within the Goulburn River
- threatened species recovery monitoring (Trout Cod in Seven Creeks and Macquarie Perch in Holland's, King Parrot and Hughes Creeks and the Broken River)
- monitoring of Macquarie perch populations in Hollands Creek as part of the Hollands Creek Demonstration Reach project
- support for Barred Galaxias recovery actions were implemented in the upper Goulburn River Catchment
- co-investment into Macquarie Perch breeding in partnership with Fisheries Victoria and Arthur Rylah Institute
- assessing the status and health of Victoria's most southerly population of Freshwater Catfish (at Tahbilk Lagoon) continues along with works to improve their habitat

Instream habitat of the Goulburn River between Seymour and Mitchellstown was assessed by Arthur Rylah Institute with priority recommendations for improving instream diversity implemented.

Arthur Rylah Institute and Monash University has submitted the draft report summarising the results of recent monitoring in upper Broken and Boosey Creeks at sites previously surveyed in relation to the Tungamah pipeline. The report summarises apparent 'post-drought' patterns of fish diversity and abundance, and provides interpretation of these results together with some recommendations regarding longer-term monitoring options.

Macquarie Perch populations were protected, as part of the Murray-Darling Basin Authority Demonstration Reach Project, through weed control, frontage enhancement and installation of large wood, although progress was hampered because onground activities focused on repairing flood damage.

The status of fish was reported in the Lower Goulburn Fish Communities project, part of a long term monitoring program being undertaken by Arthur Rylah Institute, with successful breeding of perch species, recorded for the second time in the monitoring program's history, thought to be linked to flooding and connection of the river to the floodplain for the first time in many years.

Freshwater catfish habitat was protected and enhanced at Tahbilk Lagoon through a joint project under the Victorian Investment Framework. Activities included resnagging, fish passage improvements, riparian fencing and revegetation, aquatic weed control, fish monitoring and the installation of interpretative signs.

Impacts of turbidity on native fish communities in the Broken River are being monitored to assess the effects of decommissioning Lake Mokoan.

A Passive Integrated Transponder tag reader was manufactured for the Shepparton weir to assess the migration and movement of native fish, including Murray Cod and Trout Cod, although high river flows meant that it is still yet to be installed.

A project was supported to monitor fish movement responses to dissolved oxygen stratification in Broken Creek. This project also identified constraints with the current Passive Integrated Transponder tag readers and provided recommendations to enhance knowledge on fish tracking operations.

The Goulburn Broken CMA was a Banksia Environmental Award finalist for the work it has been involved in over the last 10 years to promote and protect the values of spring wetlands in the Strathbogie Ranges and the program of engaging Traditional Owners in Natural Resource Management initiatives.

Native Fish Awareness Week was held in November 2011. Events in this region included workshops at Yarrawonga and Marysville, a mini fish forum (presenting results from recent monitoring and issues around the protection of native fish) and launch of the Goulburn River Talking Fish Booklet. The community and partners were involved in this event.

Input was provided into the development of protocols for fish deaths and drying waters.

2011-12 performance – Investment area 2c – Water quality (nutrients) in rivers

The works and actions undertaken within the Water Quality Program address the key actions from the Goulburn Broken Water Quality Strategy and the Goulburn Broken Regional River Health Strategy. Many of these actions are multi-year on-going initiatives and are delivered through a range of the regional project partners (Goulburn-Murray Water, Goulburn Valley Water, Environment Protection Authority, Goulburn Broken CMA, local government, community groups and individuals).

2011-12 performance (outputs achieved against targets set as a result of funds received) **On target**

The focus of water quality management continued to concentrate on the impact of floods on instream water quality. Research and investigations continued, including real-time monitoring and assessment of floods on instream water quality.

Works and operations

Fire recovery work continued, with many actions such as protecting riparian areas by stock proof fencing and revegetation, aimed at reducing the impact on water quality.

A program of works through a business prospectus for water quality improvement was developed, which will help local agencies identify actions to enhance water quality in the upper Goulburn catchment and receiving waters.

Funds were allocated to Benalla Rural City Council to support the design of water quality treatment in the Benalla township western outfall.

The frequency and type of monitoring within the Shepparton Irrigation Region was reviewed, resulting in changes that allow for low flow periods in particular and to create more efficient data gathering, while maintaining the integrity of records built up over many years.

A review of water quality monitoring post fire in the upper Goulburn River catchment was undertaken. This led to a rationalisation of sites. Further reviews are expected in 2012-13 on all water quality monitoring sites across the region.

Collaborations and communities

Regional partners continued to actively participate in regional water quality forums. The Goulburn Broken CMA continued its involvement in the North East Water Quality Monitoring Network, which merged with the North West Group in mid-year to form the Northern Partnership.

The River and Contingency Planning Group played important roles in flooding, blackwater and low dissolved oxygen events. The Goulburn Broken WaterWatch program continued to be highly successful in educating and providing water quality data and WaterWatch community actions were increasingly linked to works and priorities.

Regional partners continued to actively participate in the Regional Water Quality Group. This committee a review of priority water quality issues within the region in 2011 -12, which will guide group activities in the next financial year.

A waterway action plan for upper Seven Creeks, prepared with the local community, highlights the importance of riparian, instream and stability threats while considering water quality and flows.

The goal of the strategy 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.

Supporting the strategy and regional water quality issues is the Goulburn Broken Water Quality Forum, which meets regularly to review the implementation of the strategy, to identify new and emerging issues and the communicate new projects which have commenced in line with the strategy.

The AshWatch Project, discontinued by WaterWatch in 2010-11, was replaced temporarily with a new Blackwater Project in the lower Goulburn and Broken River catchments.

Melbourne University received Australian Research Council funding, with the Goulburn Broken CMA as a partner, to investigate 'How effective are environmental flows? Novel approaches for monitoring and assessing ecological responses to large-scale flow alteration'.

Planning and responding (including research and development)

The Goulburn Broken CMA maintain operational water quality condition through real-time, web accessible, water quality monitoring of the lower Broken Creek system and the lower Goulburn River. This data provides important information in responding to blackwater and low dissolved oxygen events. The WaterWatch program established a monitoring regime to assess the impacts of regional flooding and the possible identification of blackwater and low dissolved oxygen. This project complimented the real time monitoring.

The Goulburn Broken River Contingency Planning Group continued to meet, which included Goulburn Broken CMA, Goulburn-Murray Water, Goulburn Valley Water, the Environment Protection Authority, Department of Primary Industries and Department of Sustainability and Environment. The Group plans for potential hazards within local waterways in both high and low flow conditions. The Group continues to maintain a website to facilitate communication between agencies.

Collection of data on nutrient load volumes was hampered by extensive flooding throughout the year. Damage to monitoring sites and backflow effects at gauging sites within the Shepparton Irrigation Region required more detailed assessment than usual, but flow volumes following the rains were significant. The effect of our water quality improvement programs over the years will be apparent once we complete the analysis.

An evaluation of the requirements of water quality monitoring within the Catchment was commissioned in partnership with Goulburn-Murray Water and North Central CMA. A further State-commissioned project, managed by the Goulburn Broken CMA, is looking at the impact of climate change on aquatic ecosystem and river values, with the focus on water quality, which will increase our understanding of potential impacts so that priorities can be identified.

A 'draft' drying waters protocol was developed with Department of Primary Industries Fisheries, and final protocols are to be in place before the 2012-13 summer.

A strategic review of water quality issues was undertaken by partners in the region with the aim of developing a works program for the coordinating Group to address over time. Strategic priorities included: Development of a prioritised list of risks to water quality, onsite waste water management, sewerage scheme planning, riparian management, partnerships, stormwater management, land planning and monitoring data and knowledge.

The Commonwealth Environmental Water Holder has funded Melbourne University, Monash University and Murray-Darling Freshwater Research Centre to monitor ecological outcomes of the deployment of Commonwealth water. This includes work on the Goulburn River downstream of Goulburn Weir and on the lower Broken Creek. The scope of the work is being finalised, and could include the earlier proposed work by Arthur Rylah Institute to look at fish movement under low dissolved oxygen events.

A review of the turbidity monitoring (post 2009 fires) was commissioned to assess the need for long term data and the current use of the data by partner organisations. This review informed the rationalisation of sites and link and access to information captured at other available sites (considering other turbidity monitoring from Goulburn Valley Water sites).

The Australian Water Association conference organising committee are hoping to publish a small number of papers from the 2011 conference in the Water Journal. The paper to be included is entitled "Protection of River Health and Water Quality Following Wildfires in the Upper Catchment of the Goulburn River, Victoria"

Long-term strategy implementation progress – River and Wetland Health investment areas

Investment area	Strategy life	2012	Certainty of rating	Trend ⁱ
Environmental flows	2004-present	On target ⁱⁱ	Medium	↑
Riparian and instream habitat and channel form	2005-2015	Below target ⁱⁱⁱ	High	●
Water quality (nutrients) in rivers	1996-2016	Exceeding target ^{iv}	High	●

See Appendix 1 for notes on the analytical framework (page 78), including an explanation of the decision focus and ratings.

i Assumed to parallel government funding trend.

ii Outputs (scheduled between 2004 and 2012).

iii Outputs (tasks and works scheduled between 2005 and 2012).

iv Outputs (tasks and works scheduled between 1996 and 2012).

Environmental flows

In recent years, the Goulburn Broken CMA has delivered environmental entitlements to the Goulburn River, lower Broken Creek, Broken River, Barmah Forest and a number of priority wetlands 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.

The Victorian Government, with support from the Goulburn Broken CMA and its partners, is increasing water availability by saving water in supply and delivery for farming through projects such as the Australian Government's On-farm Irrigation Efficiency Program) and the Northern Victoria Irrigation Renewal Project.

Seasonal watering proposals are prepared for rivers and wetlands, which outline a proposal for how and why environmental water resources will be used to protect and restore rivers and wetlands.

Riparian and instream habitat and channel form

High rainfall events occurred again in 2011-12 resulting in significant floods, including some of the highest on record, impacting positively and negatively on environmental, social and economic values.

The community continues to use riparian incentives to maintain sites where works have been undertaken.

Water quality (nutrients) in waterways

Strategy development, implementation and review processes are closely aligned with best practices identified in the National Water Quality Management Strategy.

There have been major improvements in wastewater treatment, irrigation reuse, dryland natural resource management programs, and protection of riparian lands.

WaterWatch continues to be a highly successful community education program and its activities are progressively being better integrated into natural resource management programs.

Strong relationships between major stakeholders have been developed, including a multi-agency memorandum of understanding.

The recent emphasis has been on blackwater, low dissolved oxygen and aquatic weed growth, away from nutrient management and algal blooms.

Catchment conditionⁱ – River and Wetland Health investment areas

Investment area	Examples of evidence of Catchment condition used to inform decisions	1990 ⁱⁱ	Certainty of rating	2012	Certainty of rating	Trend
Environmental flows	Water regimes of environmental features Management systems	Poor	Low	Good	Medium	↑
Riparian and Instream habitat and channel form	Index of stream condition Management systems	Poor	Low	Satisfactory	Medium	↑
Water quality (nutrients) in rivers	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 78), 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 2012 of the situation in 1990.

Environmental flows

Floods and wet conditions extended from winter 2011 to autumn 2012, providing all environmental flow components for many of the Catchment's rivers, floodplains and wetlands. Planned environmental water releases to most wetlands were not required. It was the second year in which significant environmental entitlements were available for use in the Goulburn system.

Catchment management systems that will result in appropriate watering of the environment have been under development for well over a decade.

Environmental Water Reserve funding started in 2004 following release of the Victorian Government's white paper, *Our Water Our Future*, and environmental water allocations were occurring prior to this. Research and monitoring has been initiated and continues through the Victorian Environmental Flows Monitoring and Assessment Program.

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

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

Riparian and instream habitat and channel form

The impact of 2011-12 flood events was assessed and will continue to be monitored. Sites aligned with approved funding will continue to be rehabilitated.

Increased effort is being placed on areas of Crown water frontages through State investment and support.

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

Water quality (nutrients) in rivers and streams

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

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

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

What's next?

Environmental flows

Work to secure flexible access to environmental water will be undertaken and will increase capability in delivering water to multiple waterways and wetlands.

Seasonal watering proposals and environmental watering plans will continue to be prepared so that environmental water is used effectively and efficiently.

Opportunities for multiple uses of environmental water will be explored with neighbouring the Victorian Environmental Water Holder, the Commonwealth Environmental Water Holder and the Murray-Darling Basin Authority.

Ecosystem robustness will continue to be improved by enhancing breeding through opportunities from natural flows and other cues.

Refuge sites for aquatic species will continue to be identified and managed in all investment areas.

The capacity to manage and monitor environmental water will be maintained.

Riparian and instream habitat and channel form

Long term capacity to deliver changes will continue to be improved, especially by filling knowledge gaps.

The community will continue to be supported in undertaking riparian protection programs, mainly through the "Securing Priority Waterways – On Ground Works" government funded program.

Maintenance activities will need to be built into funding programs to ensure upkeep of past investment.

The major onground works initiative as part of the 2010 and 2012 Flood Recovery Program will continue.

The effectiveness of on-ground works will continue to be monitored through appropriate evaluation.

Facilitation of improved management of water frontages for the benefit of river health and water quality will be supported.

Statutory functions of the Goulburn Broken CMA in land use planning, waterway by-laws and partnerships with local government will continue to be supported.

Water quality (nutrients) in rivers and streams

The Goulburn Broken Regional Water Quality Forum will continue to meet and the Water and River Contingency Planning Group will continue to be supported.

Key waterways in the region will be assessed against the State Environment Protection Policy (Waters of Victoria).

The likely impacts of climate change on waterway values, in particular water quality, will be investigated.

The assessment of ecological and water quality responses to water efficiency projects will be finalised.

Climate change activities that relate to river and wetland health

Planning for the Goulburn Broken Regional River Health Strategy will include climate change implications

A strategic and ongoing role in projects will be maintained that enhance the knowledge base in climate change and associated impact of altered flow regimes.

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.

Case study

Cabomba Control in Lake Benalla and the Broken River

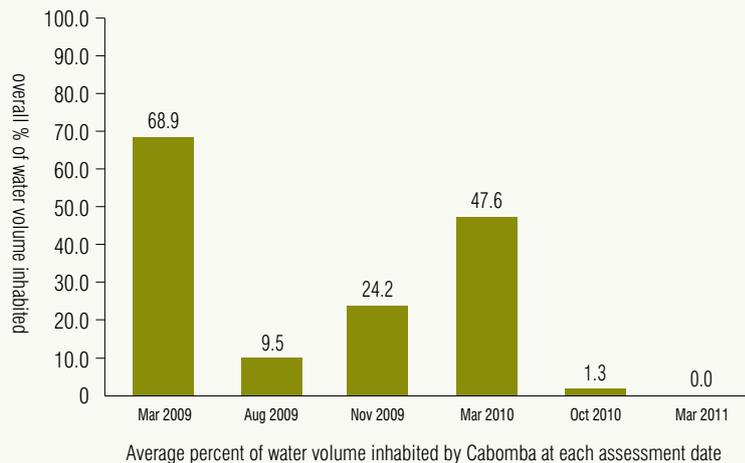
By Jo Wood and Meegan Judd

In 2010, the Goulburn Broken Catchment Management Authority secured funding from the Australian Government Program 'Caring for Our Country' to reduce the impact of Cabomba caroliniana (a Weed of National Significance) on the health of the Broken River and Lake Benalla and to stop the potential threat of the weed spreading to the Ramsar listed Barmah Wetland.

Cabomba was first identified in Lake Benalla in 1990 and at times has covered the lake bed. Infestations of Cabomba are currently found within Lake Benalla and along the Broken River to Casey's Weir. Cabomba is a highly invasive weed that restricts recreational use of a water body, can be a drowning hazard, outcompetes native flora and creates foul smelling un-potable water. Drawdown and drying of a site is considered to be one of the best control methods of the weed.

This project requires the collaboration of numerous industry partners including the Benalla Rural City Council and Goulburn-Murray Water to ensure the management of Cabomba is effective. Surveys of Cabomba populations within Lake Benalla, the Broken River to Casey's Weir and upper Broken Creek have been conducted since 2009 to gain an understanding of population size and distribution.

In 2009 approximately 70% of Lake Benalla was occupied by Cabomba. Winter drawdowns between April and June 2009 and April and July 2010 and flooding in September 2011 reduced the population of Cabomba to less than 2 per cent within the main Lake bed body.



Graph taken from Dugdale et al 2011.

A summer drawdown at Lake Benalla in February 2012 along with another flood event in March prevented any growth of Cabomba within the main body of the Lake. The Cabomba is now reduced to a small satellite population in a disconnected anabranch of the Lake.

The combination of drawdowns and high flows that occurred throughout 2010-12 has resulted in high water and turbidity levels in Lake Benalla and the Broken River restricting light reaching Cabomba, which in turn has reduced its ability to recolonise. The drawdowns and floods along with the deposition and scouring of sediments have led to a huge reduction in Cabomba biomass in both Lake Benalla and downstream in the Broken River.

Funding will be sought in 2012-13 to ensure that continuation of monitoring and implementation of control methods can be carried out and possibly the eradication of Cabomba from the Broken River system will occur.

Investment area 2d – Floodplain management

Compiled by Guy Tierney. 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	2012	Certainty of rating	Trend
2011-12 performance	Outputs (against targets set as a result of funds received) Corporate Plan KPIs related to flood protection (see page 47)	n.a.	n.a.	On target	High	n.a.
Long-term strategy implementation progress	Strategy tasks implemented (scheduled to be completed between 2002 and 2012)	n.a.	n.a.	Exceeding target	High	● ⁱⁱⁱ
Catchment condition ^{iv}	Flood regimes provided for ecosystems from flood protection planning Financial savings from prevention of flood damage Systems in place related to flood protection	Very poor	Low	Poor	Medium	↑

i. See Appendix 1 for notes on the analytical framework (page 78), including an explanation of the decision focus and ratings.

ii. Ratings for 1990 have been determined using our understanding in 2012 of the situation in 1990.

iii. Assumed to parallel government funding trend.

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

Background

The Goulburn Broken CMA provides advice about flooding, planning controls and scheme amendments to local government. The Goulburn Broken CMA is a referral authority under the *Planning and Environment Act 1987*, the *Subdivision Act 1988*, the *Mineral Resources (Sustainable Development) Act, 1990*, and *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) assists in understanding impacts of floods on urban and rural communities. In recent years, these techniques have been used to understand environmental flow regimes in river and wetland systems.

Understanding flood risk (likelihood and consequences) is paramount in any flood study that underpins the investigation of mitigation and management options. Such options include structural solutions (levees, retardation basins), flood warning and emergency management arrangements, and land use planning controls.

Implementation of the Goulburn Broken Regional Floodplain Management Strategy is opportunistic and is subject to funding under Australian and Victorian Government incentives through programs such as the current Natural Disaster Resilience Grants Scheme. A review of the Strategy's nine programs is available at www.gbcma.vic.gov.au.

Climate change and flood protection

The effect of climate change on the flooding of large rural catchments such as the Goulburn Broken is not well understood.

Intense rainfall is likely to occur more frequently. This would particularly cause flooding problems in smaller catchments covering just a few

Government investment, \$000

2009-10	2010-11	2011-12	2012-13 ⁱ	Trend
614	832	496	362	↓

i. Forecast based on advice at August 2012.

Major strategic references

- Goulburn Broken Regional Floodplain Management Strategy 2002-12
- *Planning and Environment Act 1987*
- *Subdivision Act 1988*
- *Mineral Resources (Sustainable Development) Act 1990*
- *Building Regulations, 1996*

square kilometres or less, with such problems being dampened over larger rural catchments. However, techniques to design flood estimates for large rural catchments are not well advanced. Further investment in collaborative research is needed:

- to identify appropriate new methodologies in flood study investigations
- to address stormwater and flash flooding in urban centres where climate change is likely to have a profound impact (the damage bill from flash flooding is estimated to be the same as that from riverine flooding)
- to prepare new flood maps to enable risks to be managed
- to identify appropriate freeboard requirements over and above the standard 300 millimetres that the building regulations allow for new buildings and associated infrastructure such as roads, communications and plant.

In addition, new findings on climate change and its implications, such as for emergency management, need to be included in policy and put into practice.

The Victorian Government has carried out a Floods Review and is currently finalising the Inquiry into flood mitigation infrastructure in Victoria. The findings of these reviews will be considered by the Parliament and in the development of a new Victorian Flood Management Strategy.

2011-12 performance

Systems developed over the decade-long dry period proved to be successful after being given ultimate real-life tests in the form of several major floods during 2010, 2011 and again in 2012. In March 2012, the Broken Creek catchment saw the highest floods in recorded history, causing significant damage to both rural and residential areas.

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

- commencement of the Shepparton East Overland Flood Study, Shepparton Mooroopna Flood Intelligence and Mapping Study, Corop Lake Flood Scoping Study, Violet Town Flood Mitigation Detailed Design Study
- completion of the Regional Murray River Flood Study, advanced functional design for Barmah Township Flood Mitigation Study and advanced progress for the King Parrot Creek Flood Mapping Project
- Mansfield Shire Council committed to a major planning scheme (flood) amendment. The Mansfield Flood Study is under a complete review to extend mapping for the Council
- funding sought for five new initiatives under the Natural Disaster Resilience Grants Scheme: Numurkak Floodplain Management Plan, Cobram East Mitigation Design and Tallygoorooopn/Congupna Flood Review
- 98 per cent of statutory planning applications determined within prescribed time limits
- continued testing of work flow for a Statutory Planning Geographic Information Systems on behalf of all in Victoria.

Floodplain management actions 2011-12

Action	From funds received through Goulburn Broken CMA's Corporate Plan		
	Achieved	Performance ⁱ or progress in 2011-12	
Integrating knowledge into planning			
Subdivisions*	no.	101	
Dwellings	no.	257	
Retail, shop or office buildings	no.	26	
Planning scheme amendments	no.	18	
Whole farm plans	no.	110	
Flood information enquiry	no.	175	
Planning other	no.	233	
Flood planning amendments gazetted	no.	0	Preparation for new mapping for Mansfield Shire Council
Flood levels declared	no.	0	
Victorian Civil Administration Tribunal and panel hearings attended	days	2	
Floodplain implementation	no.	1	Nathalia Flood Mitigation Plan and Flood Warning and Emergency Management Arrangements
Ground level information	no.	> 20	Significant areas of high resolution Light Detection and Ranging (LiDAR) has been delivered across many areas of the Goulburn Broken Catchment including: Strathbogje Plains, Kilmore-Broadford area, Mansfield Buxton, King Parrot Creek, Corop Lakes, lower Goulburn River. Also, standard resolution LiDAR has been delivered for most first and second order waterways within the Goulburn Broken Catchment.
Peak Flood Level Information	no.	> 500	New peak flood levels have been captured following the 2010 and 2012 floods for many rural and provincial areas
Urban flood studies and management plans	no.	1	Violet Town Floodplain Management Study
Regional flood studies and management plans	no.	1	Regional Murray River Flood Study
Creating awareness			
Flood education and awareness program	no.		Ongoing through www.floodvictoria.vic.gov.au

i Most actions are performed reactively so no targets are set annually, however there are Key Performance Indicators relating to regulatory waterway/water functions (see page 47).

ii Based on indicative breakdown

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 Commonwealth government grants.

Improving the natural flooding patterns of ecosystems via sensitive floodplain protection planning is a task in progress.

Catchment condition

The built environment is in a better state with improved pre-development planning and flood response systems. The prolonged dry period from 2002 resulted in negligible flood damage until the significant floods of September 2010, and March 2012 which caused agricultural and urban (residential and business) losses and damage to waterways and associated infrastructure.

The Goulburn Broken CMA is beginning to align floodplain management with the Environmental Water Reserve program, such as the Goulburn and Murray Rivers (Barmah-Millewa Wetlands). Large opportunities such as the lower Goulburn River floodplain remain uncaptured.

What's next?

Flood awareness and education programs regarding access to flood data will continue following the launch of the Flood Victoria website, www.floodvictoria.vic.gov.au.

Revised flood mapping using newly captured terrain elevation data against newly derived information contained in the 100-year flood level atlas will continually be improved. This will build on the recently delivered Light Detection and Ranging data sets.

Local government planning scheme amendments to incorporate new mapping and performance based assessments will continue.

Flood warning and emergency management arrangements with partners, particularly the Victoria State Emergency Service and local government, will be supported. Capital works and further flood studies will also be supported.

Recommendations of the Comrie Flood Review and the Victorian Environment and Natural Resources Committee's inquiry into flood mitigation infrastructure will be responded to.

Investment area 3 – Land and Biodiversity

Compiled by: Steve Wilson, Jenny Wilson, Carla Miles, Mark Cotter, Tony Kubeil, Kate Brunt, Melanie Haddow, Greg Wood, Rhiannon Apted, Janice Mentiplay-Smith, Jim Begley and Kate Hill. See www.gbcma.vic.gov.au for more details.

Background

Biodiversity assets of the Catchment include habitat and species and communities, many of which are threatened. If we are to conserve these assets we need to manage them to increase their resilience to changes, such as droughts and floods. These assets support productive and sustainable landscapes by providing ecosystem services such as pollination, pest control, native species habitat, healthy soils, clean air and provide an aesthetically pleasing place to live and recreate. Many areas are valued for different and often competing land uses such as wildlife species habitat and wildfire control, providing challenges for the Land and Biodiversity program. Investment in the Catchment's biodiversity and land health is guided by the Biodiversity Strategy for the Goulburn Broken Catchment Victoria 2010-15.

The Land and Biodiversity program's vision (updated in 2012) is "*Healthy and resilient ecosystems, and an actively involved and inspired community practicing sustainable natural resource management.*"

The Land and Biodiversity program continues to deliver a range of projects that involve the community in biodiversity conservation and land health. These projects are delivered through the sound basis of the Biodiversity Strategy and in alignment with State and Commonwealth priorities. Three discrete but highly connected investment areas are reported in this section under the Land and Biodiversity program:

- 3a Biodiversity;
- 3b Land health, including dryland salinity; and
- 3c Invasive plants and animals (managed largely by Department of Primary Industries).

Although the three investment areas are managed separately, they are connected by common actions and intent. For example, protection and enhancement of native vegetation often includes fencing along streams and wetlands and revegetation and pest plant and animal control. Farmers are encouraged to consider biodiversity outcomes when assessing soil health. The integration of these investment areas, and carrying out of works in the same landscapes, can result in a systems-based approach to land management, which recognises that each affects the other.

The Goulburn Broken CMA works in partnership with government agencies, local government, and community natural resource management groups.

Significant challenges for the Land and Biodiversity Program in 2011-12 were associated with changes in Victorian Government policy, such as changes to Department of Primary Industries and Department of Sustainability and Environment policy directions and staffing, and Department of Sustainability and Environment's direct funding of Landcare facilitator positions. New funding opportunities include the Victorian Government's 'Communities for Nature', not available to CMAs, which brought \$2.2 million into the Catchment in 2012. The Land and Biodiversity Program assists the successful applicants with implementation standards and provides information and resources. Australian Government support and priorities have recognised the need to address climate change, resulting in new opportunities for carbon

sequestration activities. The 'Biodiversity Fund' brought in a total of \$7,468,300 into the Catchment over six years, of which \$6,403,000 will be managed by the Land and Biodiversity Program. Both of these funding sources will be available for a second round next year.

Climate change and land and biodiversity

The Land and Biodiversity Program has completed the development of a Climate Change Integration Strategy to ensure that climate change considerations, including relevant State and Commonwealth Government strategies, are factored into Goulburn Broken CMA planning and implementation.

What's next?

The Land and Biodiversity Program will continue to be guided by the Biodiversity Strategy for the Goulburn Broken Catchment 2010-15 and the Goulburn Broken Regional Catchment Strategy 2012-18 in project delivery and strategic planning addressing Commonwealth, State and regional policies and strategies. The program will continue to identify mutual priorities and integration with other internal programs, such as Sustainable Irrigation and River and Wetland Health and Floodplain Management, and work with external partners. The program will continue to focus on using a systems approach to land and biodiversity management and spatially target priority 'areas for attention' identified in the review of the Biodiversity Strategy. A land health policy statement will be developed to complement the Biodiversity Strategy. The program will continue to source funding with partners as exemplified by the recent successful funding from the 'Biodiversity Fund' (Australian Government Clean Energy Future) which will help to increase onground outputs.

Investment area 3a – Biodiversity

Compiled by: Steve Wilson, Jenny Wilson, Kate Brunt, Melanie Haddow, Carla Miles, Janice Mentiplay-Smith, Jim Begley, Simon Casanelia, Wayne Tennant and Rod McLennan. See www.gbcma.vic.gov.au for more details.

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

Decision focus ⁱ	Examples of evidence used to inform decisions	1990 ⁱⁱ	Certainty of rating	2012	Certainty of rating	Trend
2011-12 performance	Outputs (against targets set as a result of funds received)	n.a.	n.a.	On target	Medium	n.a.
Long-term strategy implementation progress ⁱⁱⁱ	Tasks (scheduled between 2000 and 2011)	n.a.	n.a.	On target	Medium	● ^{iv}
Catchment condition ^v	Native vegetation quality and extent Threatened species populations Water regimes of environmental features Management systems	Poor	Low	Poor	Low	●

i. See Appendix 1 for notes on the analytical framework (page 78), including an explanation of the decision focus and ratings.

ii. The rating of Catchment condition in 1990 was determined using our understanding in 2012 of the situation in 1990.

iii. Evidence related to aquatic, including wetland, biodiversity such as environmental share of water supply and environmental water is described in 'Investment area 2a – Environmental flows and water supply' and 'Investment area 2b – Riparian and instream habitat and channel form'.

iv. Assumed to parallel government funding trend, which includes funding from investment areas 2a and 2b.

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

Background

"Healthy ecosystems supporting viable populations of flora and fauna" is the vision for biodiversity conservation in the Goulburn Broken Catchment, as identified in the Biodiversity Strategy for the Goulburn Broken Catchment 2010-2015.

The Land and Biodiversity Program is working towards achieving this vision through direct implementation of the Biodiversity Strategy.

To determine progress towards the vision, actions and assumptions about the contribution to resource condition targets are monitored. These targets are:

- Maintain extent and quality of all native habitat at 2005 levels in keeping with the goal of 'net gain' listed in Victoria's Biodiversity Strategy 1997;
- Increase the extent of native vegetation in fragmented landscapes by 70,000 hectares by 2030 to restore threatened Ecological Vegetation Classes and to improve landscape connectivity;
- Improve the quality of 90 per cent of existing (2005) native vegetation by 10 per cent by 2030.

The Biodiversity Strategy's initiatives and actions, which are aligned with Commonwealth and State strategies and priorities, enable progress towards targets. Further targets relating to the health of the Catchment's aquatic (including wetland) biodiversity are discussed in 'Investment area 2b – Riparian and in stream habitat and channel form' on page 90.

Partners are critical in implementing many of the Strategy's actions, such as delivering environmental management incentives for private landholders.

The Biodiversity Strategy for the Goulburn Broken Catchment 2010-15 has five key areas for action.

1 **Adapting to change:** proactively respond to threats and opportunities from socio-economic and policy drivers (including the Regional Catchment Strategy), seize opportunities for climate change mitigation and adaptation, and provide tailored support to a changing social landscape.

Government investmentⁱ, \$000

2009-10	2010-11 ⁱⁱ	2011-12	2012-13 ⁱⁱⁱ	Trend
2,512	6,467	5,244	4,450	↓

i. Plus co-investment in biodiversity from other investment areas.

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

iii. Forecast based on funding advice at August 2012.

Major strategic references

- Biodiversity Strategy for the Goulburn Broken Catchment 2010-15
- Goulburn Broken Regional Catchment Strategy 2003
- Goulburn Broken Native Vegetation Plan 2003
- Victoria's Native Vegetation Management Framework

2 **Nurturing partnerships:** review and build on existing, and establish new, partnerships particularly with Indigenous groups, private landholders and community groups such as Landcare, particularly regarding biodiversity monitoring and reporting, and develop large scale collaborative projects.

3 **Investing more wisely:** invest limited resources wisely through translation of policy and research into implementation, and develop clear processes for biodiversity prioritisation at various scales using a range of mechanisms.

4 **Building on our ecological infrastructure:** enhance social capacity and ecological resilience, which involves transforming ecosystems so they can adapt to climate change, by building connections and linkages across existing biodiversity infrastructure on public and private land, including capturing opportunities for fragmented ecosystems, the national reserve system and key refuge areas, controlling invasive species, and developing appropriate fire regimes.

5 **Legitimising biodiversity conservation:** increase duty of care for the natural environment by highlighting the importance of biodiversity for quality of human life to all governments and the community, and increase support and opportunities for landholders to act as biodiversity stewards.

Climate change and biodiversity

Many species, ecosystems and vegetation communities are declining in quality and extent due to vegetation loss, functional changes to soils and water, invasive species and other threats. Climate change compounds these threats, resulting in further pressures that reduce the resilience of some species and ecosystems to threats. A wave of extinctions is forecast under runaway climate change scenarios. To address some of these threats, a climate change risk assessment was undertaken during the development of the Biodiversity Strategy, which influenced the nature of the actions identified. From this work, a Climate Change Integration Strategy was completed this year, leading Goulburn Broken CMA programs to incorporate climate change considerations and adaptation responses including encouraging biodiversity outcomes from carbon sequestration activities.

2011-12 performance

Implementation of the Goulburn Broken CMA's Biodiversity Strategy 2010-15 is well underway. Of the 64 actions identified in the strategy, 48 are ongoing or underway, four have been completed, and only 12 have not been started. Most activities and work plans for staff of the Land and Biodiversity Program align to actions in the Strategy and partners are also helping to implement the strategy.

Partners delivered several key projects, including:

- Plains Woodland Tender: fencing and revegetation (Department of Primary Industries); Tender and stewardship payments (Department of Sustainability and Environment)
- Permanent protection of high value sites (Trust for Nature)
- Threatened species protection (Department of Sustainability and Environment)
- Priority projects (community groups through an expression of interest process)
- Community education through community-based Natural Resource Management groups.

Significant levels of onground works were achieved, including fencing of 888 hectares of remnant vegetation. The Plains Woodlands project (703 hectares), and the Plains Wetland Tender (136 hectares) made major contributions.

Specific progress for each strategic direction outlined in the Biodiversity Strategy will now be discussed.

Biodiversity Strategic Direction 1: Adapting to change

Natural resource management policy and socio-economic drivers are changing rapidly, providing significant threats and opportunities for biodiversity conservation. The Land and Biodiversity Program's response includes being flexible about delivery of projects, building resilience into its operations by diversification of funding opportunities, building corporate partnerships, and partnering and fostering research with universities. The Land and Biodiversity Program continues to be at the forefront of strategic planning, including adopting resilience theory.

Flexible delivery of projects: Projects were delivered through a range of partners, including Department of Sustainability and Environment, Department of Primary Industries, Trust for Nature and community-based Natural Resource Management groups. Continued diversification will require the Land and Biodiversity Program to continue to build strong partnerships and ensure that standards remain high.

Diversification of funding opportunities: Opportunities for non-government investment were explored through the state-wide Landcare Corporate Partnership role, hosted by the Goulburn Broken CMA with \$99,000 of corporate support for natural resource management projects being facilitated through Landcare networks and individual projects. Partnerships and projects included engaging with 26 businesses, developing a Landcare Community Grants Guide booklet, utilising various media to promote corporate Landcare partnerships (36 different avenues, e.g. newspaper and journal articles, radio interviews), supporting 11 onground projects, planting 2,000 plants, and facilitating 15 nest box and training events.

Fostering Research with Universities: The Land and Biodiversity Program actively participated in research projects such as 'Frogs and Fire' University of Melbourne and ANU's research on the native fauna associated with revegetated sites and remnants. Research by Charles Sturt University into the biodiversity value of vegetation thickets, which can occur through natural regeneration, was supported by the Goulburn Broken CMA.

Submissions on nine policies and strategies were prepared for various agencies. This year responses were given to:

- Carbon Farming Initiative Methodologies
- The National Corridors Plan
- Six local government environment strategies
- North East Fire Planning Action Plan

Biodiversity staff participated in conferences such as:

- Farming Futures Forum
- Victorian Landcare Network Forum
- Carbon Farming Initiative
- State Landcare Conference
- National NRM Conference (poster presented, co-authored paper presented)
- Fire and Rain: Social Innovation and Community Leadership conference (presentation)

Biodiversity Strategic Direction 2: Nurturing partnerships

Local Government Partnerships: The Goulburn Broken Local Government Biodiversity Reference Group, convened by Moira Shire Council and funded by Caring for Our Country celebrated its fifth Anniversary in August. The Group involves seven local councils, government departments and regional authorities and is pivotal in building the capacity of local government to play an active role in natural resource management by developing skills, knowledge and most importantly strong, collaborative partnerships. Key achievements of the Group include:

- 282 people (target 40) involved in programs initiated by local government and project partners directly aimed at the management of Threatened Grassy Woodlands
- 6 meetings (target 2) with a total attendance of 79 people with an average of 13 per meeting
- 39 local government staff (target 30) attending training courses related to the management of ecological communities
- More than \$62,000 (target \$54,000) in project partner in-kind contributions

Biodiversity staff were involved in developing six local government strategies through the Biodiversity Reference Group, representation on strategy steering committees and participation in workshops and focus groups, which contributed to alignment of local and regional priorities.

Continued membership of the Goulburn Broken Greenhouse Alliance fosters integration of natural resource management into climate change adaptation and mitigation activities at local government and community levels.

Indigenous Partnerships: The Yorta Yorta Indigenous Works Crew continue to implement biolink works in the Dookie area through Caring for Our Country funding. Tuangurung people were involved with blackberry control in spring wetlands, which capitalises on previous initiatives (such as Wetland Tender) in the Strathbogie Ranges.

Internal partnerships were strengthened through joint projects with Goulburn Broken CMA's River and Wetland Health and Floodplain Management Program such as the Plains Wetland Tender, project applications for the Biodiversity Fund, threatened species management, media such as the Fishes booklet, iSpy Frogs, Reptiles and Frogs Booklet (with Conservation Management Networks) extension and strategic planning. Working with the Shepparton Irrigation Region partners included input into the whole farm planning process.

Agency partnerships: Partnerships with a wide range of agencies, including Department of Sustainability and Environment, Department of Primary Industries, Parks Victoria, Trust for Nature, local government and community-based natural resource management groups are strengthened through the quarterly Land and Biodiversity Implementation Forum, where meetings have focused on understanding issues and priorities, developing a common understanding of funded works, woodland management, and funding opportunities. Program staff attended various partnership meetings, including the Statewide CMA Biodiversity Managers Forum, Goulburn Broken Regional Catchment Strategy Project Management Team and Steering Committees.

Conservation Management Networks (CMNs): The success of CMN's in increasing community engagement in biodiversity conservation continues with the establishment of a fifth CMN, Longwood Plains CMN (independently operated through NRIP funding). The Lower Goulburn and Strathbogie Ranges CMNs are building financially and in membership, and the Whroo-Goldfields and Broken Boosey CMNs Coordinator continued to be supported financially by the Department of Sustainability and Environment and the Goulburn Broken CMA.

CMN achievements include:

- 1,011 members and growing
- 13 field days
- 1,027 people attended field days and workshops (an average of 79 people per field day)
- employment of coordinators equaling 2.2 full time equivalent positions
- received \$369,000 in project funding (successful grant applications of \$1,083,300)
- 1,000's of hours of volunteers time
- activities such as fox baiting to protect threatened species, production of a calendar, nest box activities, wetland planting and field days to discuss biodiversity conservation.

Landcare: Landcare partnerships continue to be strong with quarterly meetings with network chairs and the Goulburn Broken CMA Senior Management.

Landcare Achievements Include:

- over 3,000 Volunteers contributing time to Natural Resource Management
- more than \$1.4 million to deliver education and onground works projects
- invested \$518,000 to employ 10 part-time staff across the Catchment

Supporting individual landholders: More than 40 site visits were undertaken to properties involving landholders who have entered into five and ten year management agreements with projects managed by the Land and Biodiversity program, namely Bush Returns, Multi-regional woodlands project and Wetland Tender. The ongoing challenge of this approach is that, while this is a service highly valued by landholders, these visits are not funded.

Biodiversity Strategic Direction 3: Investing more wisely

We continued to use a range of mechanisms to appeal to land managers, including market-based incentives and devolved grants. Regional, State and National priorities are considered in identifying regional priority areas for delivery.

The Biodiversity Monitoring Action Plan continues to guide research priorities and help understand progress towards catchment targets.

Incorporating research into planning and implementation: A partnership with Melbourne University, 'Adaptive management: thresholds of native vegetation change', will inform assumptions about vegetation quality targets, improve understanding of links between outputs and outcomes, and refine the monitoring action plan. This should result in more targeted works and a better understanding of outcomes of investment.

A review of a previous paddock tree project showed that fencing of paddock trees can be an important way to protect these critical biodiversity assets, but that fencing alone is not enough. In future paddock tree projects will incorporate the planting of understory to increase tree health and long-term viability.

The release of NaturePrint (v2.0) (Department of Sustainability and Environment) will help to refine spatial priorities outlined in the Biodiversity Strategy for investment through identification of areas of high conservation value.

Biodiversity Strategic Direction 4: Building on our ecological infrastructure

Improving Landscape connectivity: The successful community-based Regent Honeyeater Project continues to restore remnant box-ironbark habitat for endangered species, planting corridors, enhancing remnants and providing habitat such as nest boxes. Monitoring of sites shows an increase in fauna richness. The project delivered 52 hectares this year. Similarly the Superb Parrot project delivered 15 hectares including corridors linking remnants of important habitat for this species.

Accelerating stewardship programs:

The Plains Wetland Tender and Grassy Woodlands Tender provided stewardship payments for 5 and 10 years and in-perpetuity (i.e. Trust for Nature covenants) management agreements. These tenders ensure maintenance of well-functioning ecosystems that are under threat from land-use change.

Identifying and maintaining well-functioning ecosystems:

Important, high quality sites purchased or covenanted for conservation included 210 hectares secured in state and regional priority areas by Trust for Nature's covenanting and revolving fund program.

Weed control: The Land and Biodiversity Program supported Benalla Rural City Council, Greater Shepparton City Council and Murrindindi Shire Council in treating 166 hectares (target 27 hectares) of Chilean Needle Grass, a weed of National significance, on road reserves and other council-managed land containing threatened grassy woodlands.

Threatened species management focused on assessing the population status of the Striped Legless Lizard, Golden Sun Moth, Grey-crowned Babbler, Alpine Tree Frog, Spot-tailed Quoll, Mountain Pygmy Possum and several threatened plant species.

The Goulburn Broken Indigenous Seedbank at the University of Melbourne's Dookie Campus continues to be an essential resource: 215 kilograms of seed was collected from natural populations and seed orchards, such as the Euroa Arboretum, which ensure large volumes of seeds collected for threatened species.

Actions 2009-10, 2010-11 and 2011-12

Action	From funds received through Corporate Plan					
	Achieved ⁱ		Target	% achieved		
	2009-10	2010-11		2011-12		
Stock grazing management action						
Fence terrestrial remnant vegetation	ha	1,276	1,112	680	566	120
Fence wetland remnant	ha	8	78	160	250	64
Fence stream/river remnant ⁱⁱ	ha	63	354	0	0	100
Binding management agreement (licence, Section 173, covenant) ⁱⁱⁱ	ha	906	434	360	380	95
Grazing regime change ^{iv}	ha	233	119	0	0	100
Habitat loss management						
Revegetation – plant natives ^v	ha	1,403	1,383	1,862	1,830	102

- Achievements include those from complementary investment areas (Shepparton Irrigation Region salinity, Riparian and instream habitat and channel form and Land health (including dryland salinity).
- In 2009-10, 63 kilometres were achieved and this was reported, incorrectly, as hectares; this will not affect the overall order of achievement.
- In 2009-10 and 2010-11, Trust for Nature delivered all of the hectares achieved.
- In 2010-11 and 2011-12 these outputs were lower due to post fire and flood access and service delivery issues.
- In 2009-10 natural regeneration from the Caring for our Country Woodlands project and the E=M3C3 project are also included 705 hectares and 10 hectares respectively.

Biodiversity Strategic Direction 5: Legitimising biodiversity conservation

The importance of biodiversity to human welfare needs to be understood more broadly by the community to ensure appropriate and increased resources by the government and the community in conservation actions. This must first occur through education of the community to increase support and understanding of duty of care. Progress towards this strategic direction includes:

- promotion of elements of biodiversity through media, such as the Reptiles and frogs booklet, including a CD of frog calls, the 'iSpy frogs' phone app and booklet. These publications recognise the importance of wetlands and riparian zones.
- the long-standing (since 1998) and popular (32 attended in October 2011) Box-Ironbark Ecology Course continued to be supported by the Goulburn Broken CMA (through Caring for our Country) and the Broken Boosey and Whroo Goldfields CMNs.
- Chough Chat continues to be an important email forum to publicise events.

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 92 for details of 2011-12 performance.

Climate change activities that relate to biodiversity

The Goulburn Broken CMA continued to support the Goulburn Broken Greenhouse Alliance and the Goulburn Broken Local Government Biodiversity Reference Group. Both groups received funding through the Victorian Local Sustainability Accord to implement climate change projects.

Investigations into opportunities and challenges associated with carbon markets continued with key partners and policy makers. The Goulburn Broken CMA has been pro-active in commenting on Carbon Farming Initiative policies with the aim of ensuring good biodiversity outcomes.

Monash University's 'Carbon Project', which aims to develop a robust modelling platform for the impact of reforestation on carbon, water and biodiversity for the Goulburn Broken Catchment, continued to be supported.

The Goulburn Broken CMA Climate Change Integration Strategy was completed, following on from the Climate Change Position Paper (2007). It provides direction for how the organisation will integrate climate change into investment areas, look for opportunities through the carbon market and support mitigation efforts.

Several works-oriented projects such as Wetland Tender, Bush Tender and the Woodlands Project, are building greater general resilience of the natural environment to various threats, including climate change. The Goulburn Broken CMA also continues to improve the way it develops priorities so that works can be better targeted to address climate change issues.

Long-term strategy implementation progress

Long term progress against the updated Biodiversity Strategy's five strategic directions is summarised below.

1. Adapting to change:

- supporting and influencing the development of the Goulburn Broken Regional Catchment Strategy
- the development of the Goulburn Broken CMA Climate Change Integration Strategy adapting to changes in delivery partners and the devolving of grants directly to community groups (e.g. Communities for Nature (Department of Sustainability and Environment) and individuals (e.g. Biodiversity Fund (Clean Energy Future).

2. Nurturing partnerships:

- continuation and improvement of numerous partnerships: funding bodies; agencies; community groups; indigenous groups and landholders.
- the Land and Biodiversity Implementation Forum, now in its second year continues to be successful and influential.
- cross border partnerships including Murray CMA, and Yorta Yorta Nation.

3. **Investing more wisely.** The priority zones identified in the Strategy are being targeted for incentives. New research will help us develop a long-term monitoring approach to measure biodiversity outcomes.

4. **Building on our ecological infrastructure.** Improving landscape connectivity and function and climate change adaptation are a focus for grants, and community projects. Seedbank projects are critical in ensuring seed supply for future (landscape-scale) revegetation projects.

5. **Legitimising biodiversity conservation.** Biodiversity conservation is increasingly recognised as a legitimate land use and integral part of land management, as well as a key link to human welfare. Ongoing efforts are required to promote the harmony that can exist between biodiversity conservation and agricultural productivity. Conservation Management Networks are playing a valuable role in promoting the importance of biodiversity conservation.

Catchment condition

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

While acknowledging uncertainty, we appear to be making some progress towards vegetation extent targets (see graph on page 105). However, future rises in extent need to be much greater if we are to reach the 2030 target.

Major threats to the condition of biodiversity include the increased likelihood and frequency of fire due to climate change and large-scale and frequent fuel reduction burning.

The measures used to determine progress towards targets include:

- area of high-quality remnants of native vegetation protected
- amount of natural regeneration through land-use change, such as stock removal
- area of revegetation and remnant protection through stewardship programs, such as Plains Wetland Tender, and the Woodlands Project.

The condition of aquatic (including wetland) biodiversity is described in 'Investment area 2a – Environmental flows and water supply' (page 88) and 'Investment area 2b – Riparian and instream habitat and channel form' (page 90).

What's next?

Ensuring key links with the revised Goulburn Broken Regional Catchment Strategy 2012-18

Increasing investment in biodiversity conservation (e.g. \$6.4 million over six years from Biodiversity Fund).

Responding to changes in strategies, policies and delivery approaches ensuring biodiversity is at the forefront

Strengthening community support for biodiversity conservation

Implementing a range of landholder and engagement and incentive programs

Building ecosystem resilience and delivering targeted landscape-scale projects that consider a changing climate.

Integration and cooperation with the Sustainable Irrigation and River and Wetland Health and Floodplain Management Programs.

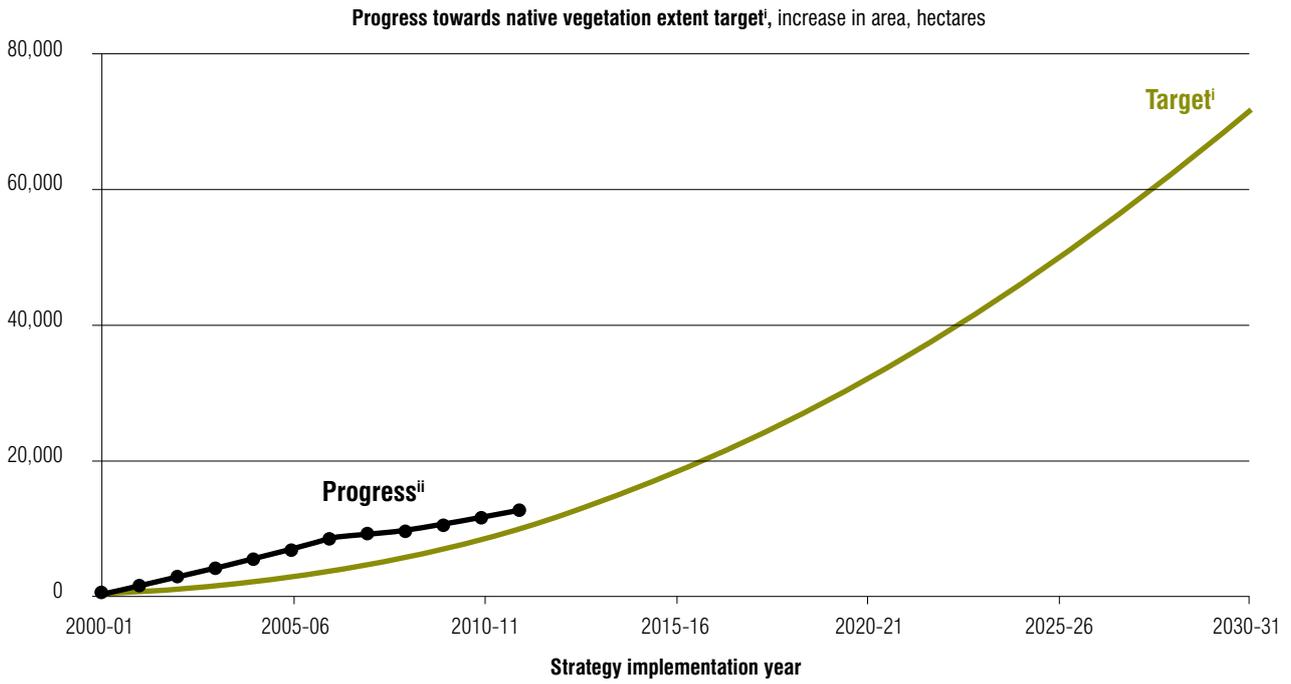
Growing Indigenous partnerships.

Developing Carbon Farming Initiative 'scheme' partnerships to ensure positive biodiversity benefits.

Continuing to support the Goulburn Broken Greenhouse Alliance and the Monash University's 'Carbon Project'.

Implementation of recommendations from the first review of the Biodiversity Strategy

Implement recommendations from the first review of the Biodiversity Strategy



- i. Resource condition target (revised 2009): Increase the extent of native vegetation in fragmented landscapes by 70,000 hectares by 2030 to restore threatened Ecological Vegetation Classes and to improve landscape connectivity.
- ii. Based on assumptions on gains in vegetation (such as revegetation and natural regeneration) and losses of vegetation (such as legal and illegal clearing). Vegetation burnt in the 2009 fires has not been included as a loss of extent, as it is assumed the area burnt will regenerate by 2030. Direct vegetation removal associated with the fires is assumed as a loss in the net outcome. Detailed assumptions can be found at www.gbcma.vic.gov.au.

Investment area 3b – Land health including dryland salinity

Compiled by Mark Cotter and Rhiannon Apted. 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	2012	Certainty of rating	Trend
2011-12 performance	Outputs (against targets set as a result of funds received)	n.a.	n.a.	On target	High	n.a.
Long-term strategy implementation progress	Outputs (scheduled between 1990 and 2011)	n.a.	n.a.	Below target	Medium	↓ ⁱⁱⁱ
Catchment condition ^{iv}	Watertable salinity and depths Salt disposed to Murray River Salinity of environmental features Management systems	Poor	Very low	Satisfactory	Low	↑

i. See Appendix 1 for notes on the analytical framework (page 78), including an explanation of the decision focus and ratings.

ii. Ratings for 1990 have been determined using our understanding in 2012 of the situation in 1990.

iii. Assumed to parallel government funding trend.

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

Background

In 2011-12 the Land Health program broadened its focus to include soil health. This reflects a strong community interest in the improved management of soils and the opportunities to improve catchment condition by improving the health and stability of soils. The program has been built on two projects focusing on building long-term community commitment to provide ecosystem services from soil and soil carbon. These projects were largely been funded by the Australian Government's Caring for our Country program and the Victorian Government in partnership with the Department of Primary Industries.

The main emphasis on improving soil health is protecting and enhancing the environmental services from soils - carbon sequestration, soil stability and soil biology, protecting and enhancing the soil capital and protecting other assets that are at risk of being degraded by soil disservices. Remedying soil acidity and soil erosion are two disservices from soils that are also an important component of the Land Health program because they affect other assets and undermine the resilience of our soil systems.

1.1.1 Salinity focus on discharge

The recent wet seasons have caused significant rises in bore levels, particularly across the upland catchment. The abundant pasture and grassland growth and flushing of salt has masked the presence of discharge but this will return with a future dry period. Management focus will be on those discharge areas that directly impact aquatic and terrestrial assets.

The Land Health Statement, building on last year's position, makes it clear that the future management of salinity must be justified under the programs that are principally responsible for terrestrial, aquatic or built assets. Clear direction and support from the Victorian Government is required if this position is to change to accommodate the State's responsibility under the federal *Water Act 2007*.

The Goulburn Broken Dryland Salinity Management Plan's adjusted target, developed in 2000 and 2002, is to maintain increases to salinity levels of the River Murray at Morgan (in South Australia) from the Goulburn Broken Dryland at or below 1.3 electrical conductivity (equates to 67,000 tonnes per year from the Dryland) by 2050.

Government investment, \$000

2009-10	2010-11	2011-12	2012-13 ⁱ	Trend
1,821	433	1,293	1,337	●

i. Forecast based on advice at August 2012.

Major strategic references

- Dryland Salinity Management Plan 1989 (and reviews 1995, 2001, 2008)
- (Murray-Darling) Basin Salinity Management Strategy 2001-2015
- Department of Sustainability and Environment Soil Health Strategy 2012
- Department of Sustainability and Environment draft Land Health Statement

Asset based approach and dryland salinity

There are three aspects to the assets based approach in Land Health. First is the protection or enhancement of the soil capital. Second is the restoration or preservation of services from soil, such as carbon storage, soil biodiversity and water holding capacity of soils and third is the protection of other terrestrial and aquatic assets by reducing the impact of soil acidity, water erosion and soil salinity. In 2011-12 the Land Health program worked with the community and partners on raising awareness of the importance and value of soil carbon, soil biology and management of erosion and soil acidity.

Community

The complexity of soil health and the contextual nature of its relevance and importance mean that advancements in soil health rely on strong partnerships with land managers.

Climate change and dryland salinity

The main challenge of climate change to land health is the increased variability of seasonal rainfall with its impact on ground cover, the spread of new weeds and non-indigenous pasture species. At risk also are the cropping areas, with the spread of fungal and root diseases and pests forcing changes to Integrated Pest Management regimes. In 2011-12 the burning of stubbles and consequent loss of soil carbon and increased risk of erosion was a reflection of the sorts of challenges that increased climate variability brings. The increase in summer rainfall events has already affected the catchment hydrology and introduces a new uncertainty with the decreasing relevance of equilibrium based models.

The program continues to support climate mitigation activities through soil carbon sequestration in the short term. through land class fencing, grazing management, increasing perennial cover and potential net primary production to capture more carbon, whilst reducing losses through erosion or high levels of oxidation while longer lasting and more extensive abatement programs are put in place in the economy.

2011-12 performance

The Land Health program maximised community involvement and encouraged communities to develop solutions to their problems, all in an environment of shared learning. This has, and continues to be, monitored and evaluated in partnership with expert providers.

Significant disruptions to normal works programs were caused by delivery partners undergoing loss of key staff and significantly reduced funding. This had more of an impact on the delivery of grants. The Land Health soils project was successful in retaining key partnerships with highly skilled staff which allowed the project to exceed targets

Developing robust and adaptable systems is important for managing the impacts of climate change and the program promoted land manager behaviours that best demonstrated this.

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

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

The review of bore trends in the Catchment and the modelling of upland hydrology processes and the effect of climate variability and land use change were completed in June 2012 for presentation to the Murray-Darling Basin Authority, to meet the obligations under the B register the Murray-Darling Basin Authority has established two registers to record and account for changes in the River Murray water salinity known as Register A and Register B. Register B addresses delayed salinity impacts that will have future effects on the River Murray water salinity and records credits for actions taken to offset delayed impacts).

An increased focus on soil and land health reflected a Commonwealth and State Government shift to a systems approach for catchment management and an emphasis on ecosystem services provided by soils, such as supporting biodiversity and sequestering carbon.

The Goulburn Broken CMA's Soil Health Action Plan (2006) was reviewed and updated. A representative from each Landcare Network attended the Land Health Forum to involve community networks from conceptual stage onwards creating a shared and consolidated approach to implementation of the Plan.

The Land Health Forum undertook a review of soil health activities and evaluation methods in the Catchment.

The Beyond SoilCare project completed a baseline study of the attitudes and practices of land managers towards soil health.

Works and extension

Actions 2009-10, 2010-11 and 2011-12

Action		From funds received through Corporate Plan				
		Achieved ⁱ			Target	% achieved
		2009-10	2010-11	2011-12		
Fence remnant vegetation ⁱⁱ	ha	1217	789	680	566	120
Irrigation drainage environment plans	no.	9	0	3	0	300
New irrigation referrals dryland zone	ha	11	0	4	0	400
Improved irrigation dryland zone ⁱⁱⁱ	ha	425	0	0	0	100
Sub-surface water action						
Revegetation – plant natives ^{iv}	ha	1,311	1,116	1,862	1,830	102
Pasture – plant	ha	152	0	0	0	
New groundwater pumps – public installed	no.	-	0	0	0	
Planning for works action						
Whole farm plans – Level 1 ^v	no.	200	143	102	154	66
Whole farm plans prepared – Level 2 ^v	no.	47	75	61	40	150

i. Achievements include those by complementary investment areas such as Biodiversity.

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

iii. An aggregate of properties and irrigated areas receiving intensive extension support for irrigation whole farm planning, system checks, soil moisture monitoring equipment, scheduling and major system changes.

iv. Includes 324 hectares achieved through Bush Returns (Investment area 3, Biodiversity) in 2008-09.

v. Level 2 is comprehensive and is equivalent to Shepparton Irrigation Region's whole farm plan. Level 1 is a short-course that is a precursor to Level 2.

Collaborations and communities

The Goulburn Broken CMA continues to work closely with the Department of Primary Industries on strategic implementation of onground Land Health outcomes.

The Land Health Program:

- supported the development of a National Extension Framework under the direction of the CEO's group and through the agency of Greg Leach of South East Queensland catchments.
- liaised between the Department of Sustainability and Environment, the Department of Primary Industries and Goulburn Broken CMA to support the delivery of the review of the B register entries for delayed impacts in the Victorian dryland catchment east of Nyah.
- represented dryland salinity interests on the Victorian Salt Disposal Working Group, advising the Department of Sustainability and Environment on salinity policy relevant to the agreement with the Murray-Darling Basin Authority.
- assisted with the development and preparation of the Department of Sustainability and Environment Soil Health Strategy.
- assisted with the development of the Department of Sustainability and Environment State Salinity statement.
- coordinated a forum featuring prominent farmer Joel Salatin, with 150 community members attending the event.
- the Goulburn Broken CMA is represented at the Statewide Dryland Managers Forum.
- presented findings of the Bushfire Recovery Program community skills, knowledge and evaluation report to 100 attendees at the national conference – Fire and Rain: Social innovation and community leadership.
- support to and finalisation of 14 Community Education Grants.

The Land Health Forum expanded to include representatives of Landcare and community to help shape and legitimise implementation of the Soil Health Action Plan, improving communication, capture of local information and information dissemination.

The Beyond SoilCare project established seven SoilCare groups with 180 members. These are a combination of new groups coming together, and existing groups developing programs to learn about soil health. The project held seven soil test interpretation workshops, two water and wire workshops, a farm tour and a soil pit day. The project prepared six advertisements and four email news bulletins for the community.

Planning and responding (includes research and development)

Salinity provinces as described by the Department of Primary Industry's Future Farming Systems Research influences the priorities in the Catchment. In terms of response, the urgency will be determined by direction from other programs that are adversely affected by dryland salinity.

In 2011-12 increased emphasis and effort was on developing a strategic approach to soil health where saline and sodic soils are a threat to the soil and other terrestrial and aquatic assets. The mechanism has been to develop a Land Health Statement that reflects the principles in the Department of Sustainability and Environment Soil Health Strategy and aligns with the outcomes sought by State and Federal investors and the interests of land managers.

This shift in focus reflects the increased interest in soil carbon as a means to mitigate climate change and at the same time increase the resilience of soil systems to the emergence of extreme events that are likely to result in increased erosion events, and a change in the edaphic conditions and their effect on soil carbon dynamics

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).

Hydrograph data confirms that many bores in the upland are continuing to rise with a few in the riverine plains continuing to show a falling trend, either because they are in a groundwater sink or, as regional systems are likely to be slow to respond to the changed seasonal conditions

Long-term strategy implementation progress

Soil Health Action Plan

In 2011-12 the Soil Health Action Plan (2006) was reviewed. Four of the seven programs that make up the Soil Health Action Plan are being delivered and on track (1, 2, 3 & 4), supported by the current investment program. Progress against these programs include:

Program 1: Coordination, including the formation of the Land Health Forum, the preparation of a Land Health Statement and the development of Training modules for staff and community in landscape processes.

Program 2: Community Engagement included the development of a successful engagement initiative through a soil testing program and expanded communications program and capturing data on soil condition.

Program 3: Improved Management Practice focussed on building through the grants systems, promoting land management to land class and the role of controlled grazing in soil management.

Program 4: Whole Farm Planning for Soil Health has incorporated soil health, and has expanded to become more issues focussed, making soil health program delivery more relevant to community members. The Land and Biodiversity program has worked to develop the concept of integrated landscape management and its application to program delivery.

Program 5: Working with local government is currently unfunded but will be augmented by the training modules developed in 2011-12.

Program 6: Monitoring and Evaluation focussed on development of qualitative and quantitative measures to assess landholder interests and satisfaction with program delivery, a core requirement in the investment program. The matter of benchmarking condition is still to be resolved, though future work will build on the work by Department Primary Industries Future Farming Systems Research on remote sensing of land cover and the impact on risk.

Program 7: Research and Development was supported through participation by Goulburn Broken CMA staff in different forums (Soils information Symposium, National Climate Change Adaptation Research Facility, Soils Community of Practice).

Salinity

The Department of Primary Industry's Future Farming Systems Research reviewed the dryland salinity problem in 2012, as part of a response to the preceding wet years. Bore rises in the upland area of the Goulburn Broken were around one metre and less. A rise of this amount is of little concern, but that the rise has occurred in such a short time certainly challenges our thinking about how responsive the bores are. This may be evidence of the water tables having established a different equilibrium state to what prevailed in the early 1970s.

A submission was put to the Murray-Darling Basin Authority to reduce the legacy of history impacts of dryland salinity to better reflect the hydrological processes in the Catchment. This is part of the regular review of the salinity management plans in Victoria as part of the obligation under the federal *Water Act, 2007*.

Catchment condition

Benchmarking land condition is needed to provide better assessment of the challenge and progress

Two years of above average summer rainfall have resulted in marked increases in bore levels in upland areas, the more muted response in the lower areas is entirely consistent with the time it takes groundwater to move through the system. The storm events have resulted in the failure of a large number of erosion Control structures, particularly in the mid and southern parts of the catchment. While funding is sought to assist in their report it is recognised that it is very important to build a stronger sense of responsibility in the community to manage potential erosion sites so that similar episodic failures are prevented.

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?

- The valuing of ecosystems services is an important undertaking to support their promotion and acceptance in the community. This needs to be supported by benchmarking of current status. To manage this will require improvement of priorities for land health so that relevant information in the areas that matter is captured.
- Salinity priority setting and remediation will become the responsibility of the managers of asset protection programs.
- Broaden the representation on the Land Health Forum to include community networks.
- Prepare Land Health Statement.
- Continue to coordinate community education opportunities across agencies and build the 'soil health' community network.
- Link training packages to promotion of improved management practices and soil test interpretation
- Work on the identification of improved management practices within the framework of the Land Health Forum and through ongoing discussions with the community in the implementation of the program
- Consider the implications of the Whole Farm Planning review and the most appropriate mechanism to promote Whole Farm Plans for natural resource outcomes within the context of a working farm
- Review the links with local government as part of developing the Land Health Statement to seek their input into appropriate progress and development of land capability assessment tools.
- Continue to implement the monitoring, evaluation and reporting activities and build the skills of staff to undertake activity evaluation as part of a continuous improvement process
- Define and map dryland catchment soil assets (biodiversity, structure, soil carbon storage etc) and threats (salinity, erosion, soil acidity etc.)
- Develop Geographic Information System tools to support communication packages
- Develop training packages to support promotion of improved management practices and build community skills
- Coordinate and promote community engagement through the Land Health Forum and promoting landholders showcasing improved management practices
- Promote role of highly modified agricultural landscapes in delivering Natural Resource Management outcomes through provision of ecosystem services and management of disservices

Case study

Building long term community commitment to providing ecosystem services from soils.

By Rhiannon Apted and Mark Cotter

The Goulburn Broken CMA secured around \$600,000 from the Australian Government through its Caring for Our Country program to improve the management and condition of soils in the Strathbogie Ranges and Riverine Plains.

Soil health is something we are all interested in and this is borne out by farmers' response to the Beyond SoilCare project. Long term soil health underpins the condition of the natural assets in the Catchment. Whether it is soil stability, reduced acidity, increased soil biodiversity or storage of soil carbon, a healthy catchment requires we continue to build soil health now and into the future.

Over 180 landholders have completed 470 soil tests, covering an estimated 36,000 hectares, and attended six soil test interpretation days. Farmers attending the workshops have responded to the strong partnership with industry in program delivery that has included resellers, consultants and contractors, all providing their specialised knowledge to assist farmers to grapple with the challenges of managing soil to maintain its health in the long term and generate income in the short and long term.

"It was most interesting to hear from local agronomists and seed people also. I was not surprised at how far some farmers had travelled to attend (and not just for the free soil tests) for the down-to-earth property improving info we are all hungry for, but can't as owner operators afford the time to take off and attend Ag college for." (Landholder, Creightons Creek, soil test interpretation workshop)

By focussing on issues that matter and looking at the science behind those issues, discussing the solution with landholders and getting them to share their experiences has been a key to the success of the program.

"From my perspective it was better than a thousand experts reading off their white boards, although I appreciate the knowledge and expertise those people have. ... You have rejuvenated me! Also I was astonished with the simplicity of the water erosion solution with the gully pipe." (Landholder, Ruffy, soil health farm tour)

These initial groups of farmers are continuing to build their knowledge and understanding of soils, instigating soil pits and farm tours of local properties. Attendees remarked that the information provided at these days continues to grow in technical detail concomitant with their knowledge, providing new understanding and application for sustainable farming practices.

Investment area 3c – Invasive plants and animals

Report compiled by: Greg Wood and Tony Kubeil

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	2012	Certainty of rating	1990 ⁱⁱ	Certainty of rating	2012	Certainty of rating	
2011-12 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 2012)	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 78), including an explanation of the decision focus and ratings.

ii. Ratings for 1990 have been determined using our understanding in 2012 of the situation in 1990.

iii. Extremely hard to rate, especially given that the Department of Primary Industry's pest plant and animal activities have been removed from the Goulburn Broken CMA's investment processes.

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

Background

Managing the impact of invasive plants and animals on agriculture and the environment is a critical element of all natural resource management programs in the Goulburn Broken Catchment. The delivery of invasive plants and animals strategy and onground works in the Catchment involves multiple partners and is coordinated via the delivery of the Goulburn Broken Invasive Plants and Animals Strategy 2010-15.

The delivery of the invasive plants and animals program is coordinated utilising the skills and knowledge of both partner agencies and the community. Through direction from the Goulburn Broken Invasive Plants and Animals Strategy and community support priority species are targeted for control works. This effort is backed up by compliance works undertaken by the Department of Primary Industries as described below.

While private land managers tend to focus on weed species that are well established, the Department of Primary Industries invasive plants program places more emphasis on new or emerging weed species, as preventing the establishment of new species is considered to be by far the most cost effective use of government weed management resources. This philosophy is known as the "biosecurity approach" and is a key element of the Goulburn Broken Invasive Plants and Animals Strategy 2010-15.

The major focus of the Department of Primary Industries pest animal program is to support coordinated community action. In consultation with community-based Natural Resource Management groups, the Department of Primary Industries delivers targeted compliance activities to support large scale rabbit control programs and to ensure the participation of all land managers in a project area.

Climate change and invasive plants and animals

Climate change is a significant factor when considering the possibility of new weeds being introduced to the region or the potential spread of existing weeds. Changed climatic conditions may provide the opportunity for weeds previously considered unsuited to the Goulburn Broken environment to be introduced and possibly become established in the region. Locally, existing weeds may spread more quickly and into new areas where previously they were not considered a threat. A strategic action identified in the Goulburn Broken Invasive Plants and Animals Strategy (2010) is to assess and regularly review threats. Climate change has been identified a key driver of change to the occurrence and distribution of invasive plants and animals and therefore will be a focus of threat assessments.

Government investment, \$000

2009-10 ⁱ	2010-11 ⁱ	2011-12	2012-13	Trend
0	0	0	0	●

i. DPI Biosecurity Victoria's invasive pests program funding was removed from the Goulburn Broken CMA's investment process from 2009-10. Table does not include investments from Federal or State Government sources that are integrated into larger CMA programs.

Major strategic references

- Goulburn Broken Invasive Plants and Animals Strategy (2010)
- Goulburn Broken Regional River Health Strategy 2005-15 (Addendum)
- Catchment and Land Protection Act 1994
- Invasive Plants and Animals Policy Framework

2011-12 performance

The Department of Primary Industries, Parks Victoria, Goulburn Broken CMA, community-based Natural Resource Management groups and landholders have all contributed to the delivery of onground outputs. Given seasonal factors such as breeding and growing times and associated optimum control timelines the Victorian Landcare Program is delivered over 18 months. In 2011-12, nine projects were funded under the Victorian Landcare Program to deliver invasive plants and animals onground works and these projects are on track to deliver in December 2012 as planned.

A range of pest management projects were delivered across the Goulburn Broken Catchment, targeting new and emerging weeds, established weeds and established pest animals. Projects continued to achieve high levels of voluntary compliance, but where necessary, effective enforcement operations were implemented.

More than 180 compliance notices were issued during the year, requesting landowners to undertake priority pest management works. Eleven Penalty Infringement Notices were issued for non-compliance with Direction Notices. Five landholders failed to comply with Land Management Notices and were subsequently prosecuted.

The Department of Primary Industries focus on high priority new and emerging weeds continued with all State and Regionally Prohibited infestations treated for eradication.

Works and extension

State Prohibited Weeds:

Department of Primary Industries staff again contributed to the Mount Buller hawkweed project, surveying areas inside and outside the designated quarantine area. Some new infestations were outside the quarantine area, which will result in changes to the surveillance strategy next season.

All known infestations of high priority State Prohibited weeds were inspected and any new plants treated. Species targeted included water hyacinth, alligator weed, camel thorn, giant knotweed and Mexican feather grass.

Over 40 kilometres of Goulburn-Murray Water drains were re-inspected for water hyacinth, following the removal of an infestation in 2010. No new plants were located.

Regionally Prohibited Weeds:

All known infestations of Regionally Prohibited weeds in the Goulburn Broken Catchment were treated (170 infestations in total). Species targeted were serrated tussock, cape tulip, artichoke thistle and wild garlic. This is an ongoing project and over the past three seasons, a significant reduction in the size and density of infestations has been observed.

Serrated tussock is regarded as the most serious threat to the region, and Department of Primary Industries staff continued to work closely with VicRoads to manage the northern spread along our freeways.

Established Weeds:

The Department of Primary Industries compliance program again supported Landcare driven gorse projects in the Glenaroua and Willowmavin areas. While the majority of landowners met their Gorse management obligations, some Penalty Infringement Notices were issued for non-compliance.

A new gorse compliance project was implemented in the Broadford West area, achieving high levels of landholder participation and excellent treatment results. Department of Sustainability and Environment actively supported this project, utilising Good Neighbour Program funding to treat affected public land in the project area. Rail companies also participated, treating heavy infestations along rail reserves.

The ongoing program targeting satellite infestations of gorse continued in the Catchment, with 65 sites treated this season.

Rabbits:

A rabbit compliance project in the Caveat area was implemented, targeting 65 properties. Landholder compliance was excellent with minimal follow up enforcement action required.

Ongoing enforcement activities associated with the 2010-11 Dropmore, Sevens Creek and Gooram rabbit programs resulted in three landholders being found guilty in court for failing to comply with a Land management Notice. A number of Penalty Infringement Notices were also issued.

Actions 2009-10, 2010-11 and 2011-12

Action		From funds received through Corporate Plan				
		Achieved ⁱ			Target	% achieved
		2009-10	2010-11	2011-12		
Weed invasion						
Weeds – aquatic weeds controlled/eradicated (km)	km	27	418	76	47	162
Targeted infestations of weeds in high priority areas covered by control programs (ha) ⁱⁱ	ha	4,125	424	1,372	668	205
DPI BV works - Targeted infestations of weeds in high priority areas covered by control programs (ha) ⁱⁱⁱ	ha	34,400	55,000	14,300	100	14,300
Pest animals						
Area of high priority rabbit infested land that are covered by control programs (ha) ^{iv}	ha	0	1,121	882	575	153
DPI BV works - Area of high priority rabbit infested land that are covered by control programs (ha) ^v	ha	5,700	12,200	15,800	100	15,800
Area of high priority fox infested land covered by control programs (ha) ^v	ha	108,250	57,507	60,000	0	60,000

- Pest Plant and Animal achievements do not include those for the Victorian Landcare program as community groups are usually still completing their projects when this Annual Report is compiled. These outputs are collated approximately every five years (the last time they were included was in 2004-05).
- This includes 'Weeds – woody weed management'. DPI Biosecurity Victoria works were completed outside of the Corporate Plan from 2009-10. Achievements from 2009-10 include DPI Farm Services Victoria, River health investment area and Fire Recovery Program works only.
- 2011-12 works completed by DPI Biosecurity Victoria (outside of the Corporate Plan). Reduced priority area covered by weed control programs due to increased focus on Rabbit management and redirection of regional DPI resources
- 2011-12 works completed by DPI Biosecurity Victoria (outside of the Corporate Plan). Increase in priority area covered by coordinated rabbit management programs due to regional DPI shift from weed management to rabbit management.
- Fox control outputs were achieved through the Broken Boosey and Whroo Goldfields Conservation Management Networks. 2011-12 target is zero because of additional funding provided during the year (after Corporate Plan was finalised).

Collaborations and communities

The private land public agency partnership continued, with community groups accessing \$133,000 to work in consultation with Department of Primary Industries compliance programs. This delivery technique allows for coordinated community effort followed up by agency compliance to ensure a high percentage of participation and control. Regional priority weeds Gorse and Blackberry were the focus, with additional funding being sourced for a Chilean Needle Grass Project in the Benalla area.

Local government also participated in coordinated programs, utilising funding sourced through Department of Primary Industries to treat roadside weeds in project areas. This work was critical to complement the excellent results achieved on private land.

The Weed Spotter program trained 25 new 'Spotters', bringing the total number of people trained under this program to 209. The aim of the program is to train appropriate people and organisations across the Catchment to search for, identify and report high threat weeds.

Planning and responding (including research and development)

The Goulburn Broken Invasive Plants and Animals Strategy was completed in October 2010. This strategy sets the high-level, general direction for invasive plants and animals investment in the catchment and supports the State Invasive Plants and Animals Policy Framework (launched in late 2009). The document, along with community support, is used to identify priorities for onground pest management activities in the Catchment.

Long-term strategy implementation progress

Although the absence of a Catchment invasive pests strategy in recent years has had minimal impact on the delivery of onground programs, it has made program monitoring and evaluation difficult.

Since the Goulburn Broken Invasive Plants and Animals Strategy was released in April 2011, all new onground invasive plants and animals projects have been clearly aligned to program goals identified in the Strategy. Prevention and eradication of new incursions remains the highest priority.

Monitoring and review of the Goulburn Broken Invasive Plants and Animals Strategy (2010) will be supported by the Goulburn Broken Invasive Plants and Animals forum.

Catchment condition

Since the 2009 Black Saturday bushfires, improved access to weed and pest animal infestations, coupled with targeted bushfire recovery funding has resulted in the implementation of many effective control programs. Community groups in the fire affected areas are again keen to include a compliance component in their program delivery and new projects will be developed for 2012-13.

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

While regional priorities for pest management have been identified, the Department of Primary Industry's capacity to deliver programs has declined in some areas.

What's next?

All State and Regionally Prohibited weed sites will continue to be surveyed and treated where necessary. All properties adjoining known infestations will be inspected.

The Department of Primary Industries will continue to work with community-based Natural Resource Management groups and the Goulburn Broken CMA to identify priority areas for management of established weeds and rabbits. Where groups can demonstrate sustained coordinated effort over a number of years to control priority pests, the Department of Primary Industries will provide support through the delivery of targeted compliance programs.

Appendix 3: Outputs – detailed list of achievements

Standard GB Threat or Impact Managed	Output	Land & Biodiversity Program		
		Target ⁱ	Achieved	% achieved
Threat				
Land and water use practices				
Stock grazing (ha = terrestrial; km = riparian)	Fence terrestrial remnant vegetation (ha) ⁱⁱ	566	680	120
	Fence wetland remnant (ha)	250	160	64
	Fence stream/river remnant (ha)			
	Fence stream/river remnant (km)			
	Off-stream watering (no.)			
	Binding Management Agreement (license, Section 173, covenant) (ha)	380	360	95
Induced Threat				
Saline water and high watertables				
Surface water ^{iv}	Landform/lasergrading (ha) ⁱⁱⁱ			
	Drain – primary (km) ^v			
	Drain – community (km)			
	Weir – replace (no.)			
	Farm reuse system (no.) ^{vi}			
	Drain – additional water diverted from regional drains (ML)			
	Irrigation systems – improved (ha) ^{vii}			
Sub-surface water	Pasture – plant (ha)			
	New groundwater pumps – public (no.)			
	New groundwater pumps – private (new and upgrade no.)			
	Volume water pumped (ML)			
	Tile drains – install (ha)			
Nutrient-rich & turbid water & suspended solids	Revegetation - plantation / farm forestry (ha)			
	Waste water treatment plants - install (no.)			
In-stream and near-stream erosion	Stormwater management projects (no.) ^{viii}			
	Bed and bank protection actions (km)			
Changed flow pattern	In-stream & tributary erosion controlled (km)			
Weed invasion ^{xii}	Water allocated - eg wetlands (ML) ^{ix, x}			
	Weeds – woody weed management (ha)			
	Weeds – aquatic weeds controlled/eradicated (km)			
Pest animals ^{xiii}	Targeted infestations of weeds in high priority areas covered by control programs (ha) ^{xi, xii}	405	420	104
	Area of high priority rabbit infested land covered by control programs (ha) ^{xiii}	525	711	135
	Area of high priority fox infested land covered by control programs (ha) ^{xiii}	0	60,000	60,000
Impact				
Habitat loss - terrestrial	Revegetation - plant natives within or next to remnants (ha) ^{xiv}	1,830	1,862	102
	Revegetation - plant natives away from remnants (ha)			
Habitat loss – in-stream	Fish release (no.)			
	Vertical slot fishway (no.)			
	Rock ramp fishway (no.)			
	Fish barrier removal (no.)			
Habitat loss – wetlands	Establish SEAR (Significantly Enhanced Aquatic Refugia) (no.)			
	Reinstate flood regime (ML)			
Habitat loss – Threatened species	Construct new wetland (ha)			
	Threatened Species Recovery Plan and Action Statements (no. projects)	110	110	100
Planning				
	Whole farm plans (no.) ^{xv}	150	142	95

- Targets are determined by considering levels of government funding as listed in the Corporate Plan only (government funds or funds from other sources arriving after the Corporate Plan was finalised, are not considered within these targets).
- Includes 360 hectares of remnant protection in Bushire Recovery Program in 2009-10.
- In 2010-11, the area achieved was established from the area that has been put under irrigation Whole Farm Plan for the year including modernised Whole Farm Plans and achievements from the Farm Water Program of 297 hectares. In 2011-12, the area achieved was established from using 90 per cent of area that has been put under irrigation Whole Farm Plans for the year including modernised Whole Farm Plans, and achievements from 70 per cent of the Farm Water Program of 1,248 hectares.
- 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.
- 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.

- Reuse dams allow for the collection and re-irrigation of high nutrient run-off, reducing the water and nutrient loads leaving the farm. Target was 0 in 2010-11 as incentives are no longer offered while Farm Water Program is running.
- Improved irrigation systems includes laser grading, automatic irrigation and micro-irrigation. The figures included from 2002-03 to 2009-10 are for the Shepparton Irrigation Region only. The 2010-11 figure includes improved irrigation activities as a result of the Farm Water Program (801 hectares). The 2011-12 figure includes 70 per cent of the improved irrigation activities completed as a result of the Farm Water Program (4,304 hectares).
- Stormwater management projects are undertaken on a one-to-one funding basis with local government.
- The threats posed by water quality problems required a greater volume of environmental water to manage low dissolved oxygen in the Broken Creek in 2010-11. Delivery to wetlands is funded by environmental water provisions under the Living Murray program and the Victorian River Murray Flora and Fauna Bulk entitlement. Please note that the 2009-10 achieved figure was over recorded by 5,110 megalitres

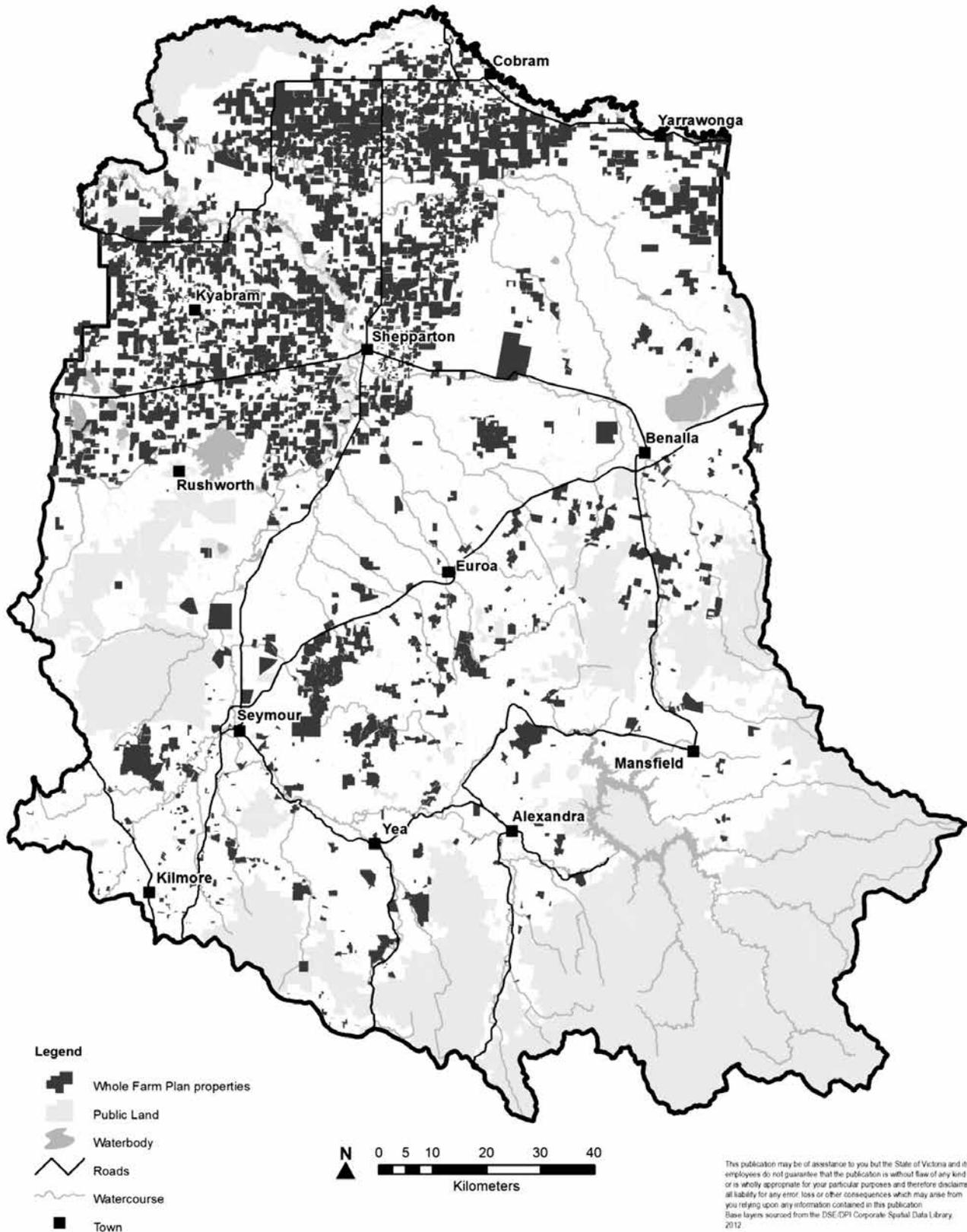
2011-12										Total achieved							
Sustainable Irrigation Program			River & Wetland Health & Floodplain Management Program			Total Catchment											
Target ⁱ	Achieved	% achieved	Target ⁱ	Achieved	% achieved	Target ⁱ	Achieved	% achieved	2010-11	2009-10	2008-09	2007-08	2006-07	2005-06	2004-05		
	45	49	108				611	728	119	1,112	1,276	451	710	769	519	771	
				8	0	0	258	160	62	78	8	609	1,794	22	6	24	
										354	n/a	2,563	2,536	726	115	91	
				36	26	72	36	26	72	93	63	185	315	162	n/a	n/a	
				30	17	57	30	17	57	21	48	122	95	73	89	74	
				4	0	0	384	360	94	434	906	363	373	1,625	758	797	
	23,500	24,505	104				23,500	24,505	104	19,546	14,170	20,476	8,525	4,490	7,700	7,700	
	2	0	0				2	0	0	1.1	6	6	9	6	11	8	
	1	0.6	60				1	0.6	60	1.4	4	5			6		
	22	25	115				22	25	115	7	76	66	48	56	70	65	
												0	200	75	235	675	
	24,000	24,145	101				24,000	24,145	101	20,050	14,217	23,059	8,967	6,060	8,580	13,232	
												152	75	391	718	1,543	544
												1	1		3	3	
	1	1	100				1	1	100	0	9	11	24	19	11	10	
	75	75	100				75	75	100	0	1,827	1,794	3,237	3,462	1,800	1,071	
														31	97	129	
				1	2	200	1	2	200		1	1	1	3	2	2	
				7.5	18.9	252	7.5	18.9	252	16	5	8	13	12	16	41	
										131	207	102	543	19	502	916	
	20	0	0	156,000	600,000	385	156,020	600,000	385	238,943	32,361	840			510,000	266	
															75	70	
				47	76	162	47	76	162	418	27	26	53	39	33	21	
				263	952	362	668	1,372	205	424	38,525	36,964	11,138	9,637	69,437	281,200	
				50	171	342	575	882	153	1,121	5,700	1,530	200		10,150	56,800	
							0	60,000	60,000	57,507	108,250	0	45,570	94,410	108,856	53,000	
	50	65	131	5	68	1,353	1,885	1,995	106	1,383	1,403	945	460	758	1,177	981	
															117	74	
															1	3	
												1				5	
				1	2	200	1	2	200			1	8	6	4		
				25	20	78	25	20	78	0	16	59	30	2	1.3	17	
							110	110	100	36	12	29	37	34	13	15	
	185	223	120				335	365	109	331	259	341	369	232	185	262	

- x. Target cannot be set with any confidence because achievement is prone to extreme variation, being affected by seasonal conditions.
- xi. Pest Plant and Animal achievements do not include those for the Victorian Landcare Grants program as community groups are usually still completing their projects when this Annual Report is compiled. These outputs are usually collated every five years (the last time they were included was in 2004-05).
- xii. This includes 'Weeds - woody weed management'. 2008-09 achievements include Department of Primary Industries, river health and Drought Employment Program works. Department of Primary Industries Biosecurity Victoria works were completed outside of the Corporate Plan from 2009-10. From 2010-11 achievements include Department of Primary Industries Farm Services Victoria, River health investment area and Fire Recovery Program works only. 2010-11 figures do not include an achievement of 55,000 hectares for weeds in high priority areas and an achievement of 12,200 hectares for high priority rabbit control (refer to investment table Invasive Plants and Animals). 2011-12 figures do not include an achievement of 14,300 hectares for weeds in high priority areas and an achievement of 15,800 hectares for high priority rabbit control (refer to investment table Invasive Plants and Animals).

- xiii. Fox control works were achieved through the Broken Boosey and Whroo Goldfields Conservation Management Networks. Target was 0 in 2011-12 because new funding arrived during the year (after Corporate Plan was finalised).
- xiv. Natural regeneration achievements from Bush Returns are included in this: 0 hectares for 2007-08 and 324 hectares for 2008-09. Natural regeneration from the Caring for our Country Woodlands project and the E=M3C3 project are also included: 705 hectares and 10 hectares respectively for 2009-10. The Green Graze program contributed 1,189 ha to the grazing regime change works output in 2006-07, which is not included in the revegetation figures. Natural regeneration from the Caring for our Country, Sustainable Farming Practices project are also included: 386 hectares for 2010-11, and 515.8ha for 2011-12. Natural regeneration from the Caring for our Country, Targeting Landscape Scale Biodiversity project are included: 712ha for 2011-12.
- xv. Figures for Land & Biodiversity Program include Level 1 and Level 2 whole farm plans. Level 1 is a short course that is a precursor to Level 2. Level 2 is equivalent to the Sustainable Irrigation Program's whole farm plan.

Appendix 4: Properties covered by a whole farm plan

To June 2012



Appendix 4: Properties covered by a whole farm plan

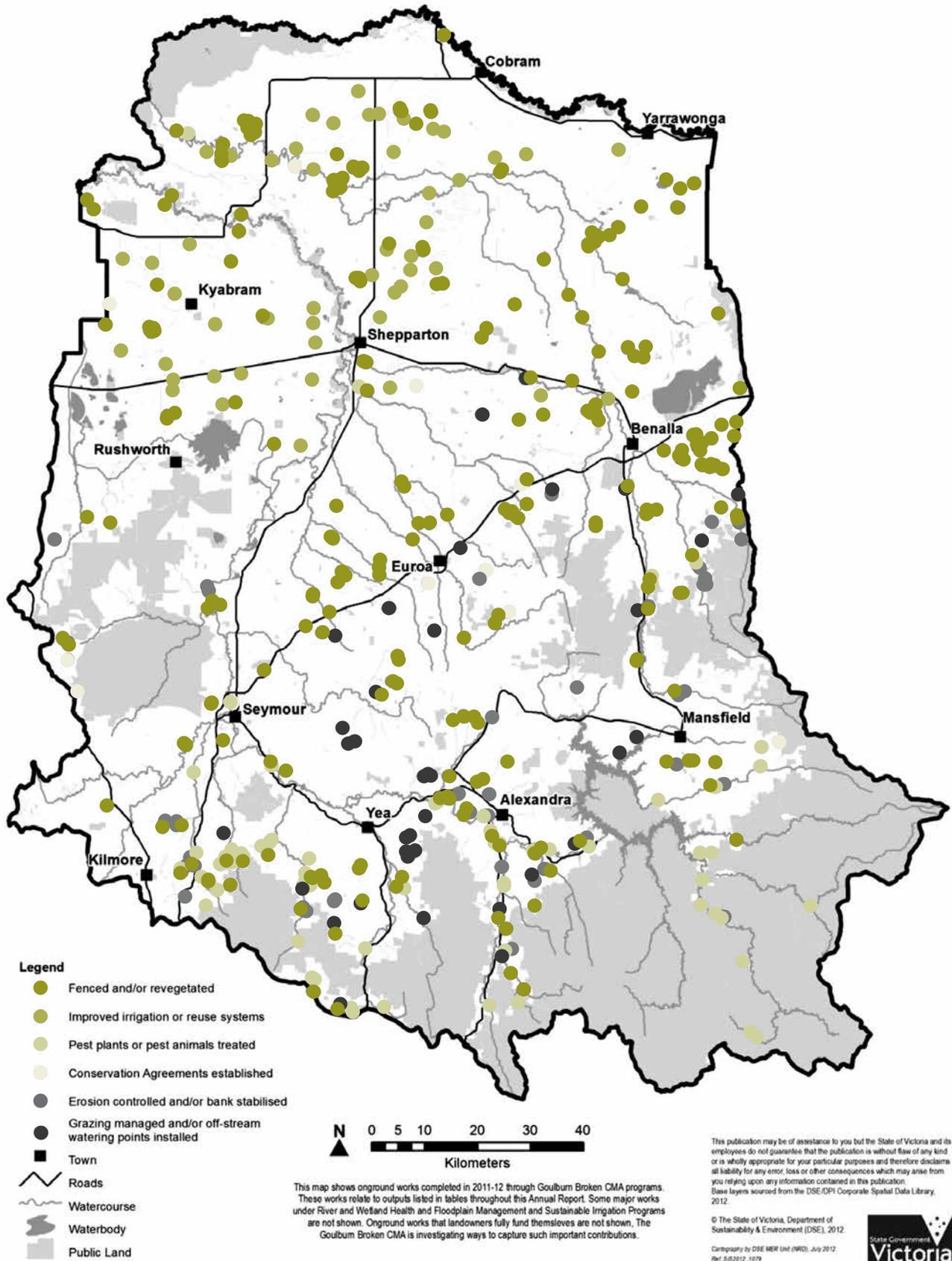
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Appendix 5: Works

July 2011 - June 2012



Appendix 5: Works

Appendix 6: Summary of relationships between Goulburn Broken CMA and partners

Multiple agency, community groups, individuals	<p>Memoranda of Understanding (MoU)</p> <ul style="list-style-type: none"> - 2006-07 Catchment Partnership MoU between Goulburn Broken CMA, G-MW, DSE, DPI and EPA Victoria is being updated in 2012 with additional partners NVIRP and Parks Victoria - 2010 Irrigation Drainage and Water Quality MoU between Goulburn Broken CMA, DSE, EPA Victoria, North Central CMA, DPI and G-MW. <p>Multiple agency and community partnership projects include:</p> <ul style="list-style-type: none"> - RiverConnect in Shepparton-Mooroopna area (initiated by Goulburn Broken CMA in 2005) - Farm Water Program Consortium, which includes Goulburn Broken, North Central and North East CMAs, NVIRP, DSE, DPI, G-MW, Dairy Australia, Murray Dairy and Northern Victorian Irrigators Inc. - Wetlands Infrastructure Connections Working Group - The Mitchell Connection in the south (formerly known as the Mount Piper Biolink) - Northern Victoria Irrigation Renewal Project - Various fire recovery committees - Community Environment Fire Recovery and cross agency Coordinating Committee - Goulburn Broken CMA Threatened Woodlands Project 2010-2013 (funded by the CfoC) co-delivered with DSE and DPI - Targeting Landscape-scale Biodiversity outcomes across the Goulburn Broken CMA 2010-2013 (funded by the CfoC) includes Goulburn Broken CMA, DSE Regional Services North East, DPI, TFN, Regent Honeyeater Project Inc, Goulburn Murray Landcare Network, Indigenous Works Crew - Plains Wetland Tender incentive program undertaken by Goulburn Broken CMA with help from DPI and DSE - Land and Biodiversity Implementation Forum (Parks Victoria, DSE Regional Services North East, DPI, local government, Trust for Nature, Landcare Networks, Conservation Management Networks) - Local Government Biodiversity Reference Group (eight local councils, Goulburn Broken CMA, DSE Regional Services North East, VicRoads, G-MW) - Victorian Wetland Working Group (CMAs, DSE, ARI, Melbourne Water, Parks Victoria) - Victorian Environmental Water Reserve Working Group (CMAs, DSE, Melbourne Water, VEW, Parks Victoria) - Goulburn Broken Greenhouse Alliance - Environmental Water Advisory Groups for Broken and Goulburn systems - Water stewardship pilot project with Alliance for Water Stewardship, Dairy Australian and Tatura Milk - Victorian River Health Managers Forum (CMAs, DSE) - Threatened species actions are prioritised by DSE, Goulburn Broken CMA and DSE (ARI).
Individuals	<p>Extension advice and 1015 incentives were provided to land managers via Goulburn Broken CMA staff and agency partners in 2011-12. Follow up site visits of past projects (such as Wetland Tender, Bush Returns, Multi-regional Woodland, and Green Graze).</p>
Indigenous people	<p>Goulburn Broken CMA's Indigenous Facilitator (appointed in 2005). A Cultural Heritage Advisor (appointed in 2009) and the Landscape Restoration Officer also support the Indigenous programs, fostering trust between wider and Indigenous communities and protecting Traditional Owners' values through:</p> <ul style="list-style-type: none"> - liaising with planners and works supervisors - supporting Yorta Yorta Nation Aboriginal Corporation and Taungurung Clans Aboriginal Corporation to undertake cultural awareness and engagement programs with partner agencies - cultural heritage planning for site protection in partnership with other agencies (NVIRP and local government) and Registered Aboriginal Parties - developing joint works programs for Indigenous employment and training with the Registered Aboriginal Parties: Yorta Yorta Nation Aboriginal Corporation and Taungurung Clans Aboriginal Corporation - assisting in the protection of cultural sites through Natural Resource Management programs. - assisting Traditional Owners in recording, collating and exchanging Traditional Ecological Knowledge for future generations. <p>Yorta Yorta Cooperative Management Agreement signed by the 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. Yorta Yorta Traditional Owner Land Management Agreement signed by the Victorian Government in 2010 facilitates the joint management of Barmah National Park. Memorandum of Understanding between Goulburn Broken CMA and Taungurung Clans for a joint Caring for Our Country project focused on Weeds of National Significance in the Upper Goulburn River catchment.</p>
Landcare and community groups	<p>The Goulburn Broken CMA is home to 93 Landcare groups, six networks, five CMN's and five sustainable farming groups. Supporting and engaging community NRM is a priority for the Goulburn Broken CMA, in 2011-12 this occurred at many levels including:</p> <ul style="list-style-type: none"> - Engagement – network chairs meetings, coordinators and facilitators meetings, Goulburn Broken CMA staff attendance at network and group meetings, LaBIF, Regional Landcare Facilitator Steering Committee, CMN committee meetings, on-farm extension - Support – Assistance with project funding, providing service delivery opportunities, strategic planning, regional representation - Corporate engagement - Bunnings stores, Bike TREES, education institutions, Mens Sheds, Rotary, Scouts, Sporting shooters Association and Darley Studs have all provided in-kind, financial or skilled based volunteerism support to community groups and networks.
Local government	<p>Three local governments (City of Greater Shepparton, Moira and Campaspe Shires) contribute to, and are represented by, the Municipal Catchment Coordinator under the Sustainable Irrigation Program and its various forums. Each municipality is briefed annually. These local governments participate in Goulburn Broken CMA's Municipal Catchment Coordinator Steering Committee and Senior Combined Partners meetings. Goulburn Broken CMA staff participate in steering committees or consultation sessions as the Benalla Rural City, Campaspe Shire, Greater Greater Shepparton City, Mansfield Shire, Moira Shire and Strathbogie Shire Councils develop their environment strategies. Goulburn Broken CMA is a key member of the Goulburn Broken Local Government Biodiversity Reference Group which includes representatives from seven of the eight councils in the Catchment.</p>

Department of Primary Industries	<p>DPI is a partner on SIPAG and other advisory groups and provides technical support.</p> <p>Service agreement and partnership Memorandum of Understanding with Goulburn Broken CMA.</p> <p>Deliver extension and grant assessment services such as whole farm planning and associated environmental management grants and research projects.</p> <p>Critical partner in engagement of and delivery of Farm Water, Fire Recovery and Woodlands Programs to landholders.</p> <p>Critical partner of Goulburn Broken CMA Threatened Woodlands Project 2010-2013.</p>
Goulburn-Murray Water	<p>G-MW is represented at all SIPAG and Goulburn Broken CMA Partnership Team meetings. Service agreement and partnership Memorandum of Understanding with Goulburn Broken CMA.</p> <p>Manages and delivers most Community Surface Water Management and the Groundwater and Salt Management projects in the SIR including research.</p> <p>Goulburn Broken CMA is represented on G-MW's SIR water services committees.</p>
Department of Sustainability and Environment – Regional	<p>Service agreement and partnership Memorandum of Understanding with Goulburn Broken CMA.</p> <p>Manage extensive areas of public land in the Catchment, including forests in the upper Goulburn, reserves in the goldfields area and unused road reserves and crown water frontages.</p> <p>Work with Parks Victoria to manage conservation reserves, including Barmah and Murray River Reserve.</p> <p>Coordinate and/or implement projects that assist the recovery of threatened species and communities across public and private land (see Biodiversity section 3a page 100).</p> <p>Delivering Bush Returns Woodland Tender (funded by CfoC), a market-based incentive approach to secure over 1,525 hectares of woodland sites under management agreements which includes working with Goulburn Broken CMA's Indigenous Facilitator to increase awareness of cultural heritage sites in the woodland landscape.</p> <p>Delivered Bush Tender, (funded by NRIP), a Market Based Instrument for achieving cost-effective conservation outcomes, and monitored properties with signed agreements.</p> <p>Contributed to the implementation of the Hume Strategy for Sustainable Communities.</p> <p>Contributing to the development of Hume Region Growth Plan.</p> <p>Collaborated with Goulburn Broken CMA in developing the Biodiversity Asset priority areas</p> <p>Assisted with the development of the next Goulburn Broken Regional Catchment Strategy.</p> <p>Oversee Committees of Management on Crown Land.</p> <p>Appointed the new Committee of Management for Winton Wetlands and work with it on management planning, including fire management and monitoring strategy.</p> <p>Contribute to the DSE CMN Project Control Board, which includes Goulburn Broken CMA representation.</p> <p>Contributed to the Emergency Response to Flooding in northern Victoria.</p> <p>Represented on: Goulburn Broken CMA Partnership Team, Senior Partners, NVIRP Wetlands Infrastructure Connections Working Group, Goulburn Broken CMA's Farm Water Program Working Group, Goulburn Broken CMA's Water and River Contingency Planning Group, Goulburn Broken CMA Water Quality Group, and on steering committees: Bush Returns, Strathbogie Ranges CMN executive Committee, Backbone to Biolinks, Wetland Tender; Caring for Our Country's Sustainable Farming Practices; local government environmental strategy projects; Dookie Seedbank, Threatened Species Project Prioritisation Protocols; Climate Change Integration Strategy; CMN Statewide Advisory Group; Murrindindi Shire Council Environment Advisory Committee; Victorian State Landcare Team; Land and Biodiversity Implementation Forum; Greenhouse Alliance.</p> <p>Provide technical support: Bush Returns, Wetland Tender; DPI grants, LaBIF.</p>
Department of Sustainability and Environment – Head Office and Australian Government	<p>Goulburn Broken CMA's Regional Investment Plan funding proposal is developed for DSE and Goulburn Broken CMA's Caring for our Country projects are developed for the Australian Government.</p> <p>Collaborate with DSE programs such as River Health, Irrigation and Landcare.</p> <p>Ecomarkets (DSE): provide templates and assessment tools, such as EnSYM for Goulburn Broken CMA to deliver Wetland Tender, and technical support.</p>
Other groups	<p>Community and advisory groups develop close relationships with many organisations as needs arise during research, planning and implementation, including Parks Victoria, Victorian Farmers Federation, Trust for Nature, the Goulburn Broken Greenhouse Alliance and the various environment and climate action groups across the Catchment.</p>

Appendix 7: Whistleblowers Protection Policy

Goulburn Broken CMA Whistleblowers Protection Policy

Whistleblowers Protection Act 2001

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1 Purpose of these procedures

These procedures establish a system for reporting disclosures of improper conduct or

detrimental action by the Goulburn Broken Catchment Management Authority or its employees. The system enables such disclosures to be made to the protected disclosure coordinator or to one of the nominated Protected disclosure officers. Disclosures may be made by employees or by members of the public.

These procedures are designed to complement normal communication channels between supervisors and employees. Employees are encouraged to continue to raise appropriate matters at any time with their supervisors. As an alternative, employees may make a disclosure of improper conduct or detrimental action under the Act in accordance with these procedures.

2 Introduction and Objectives

The *Whistleblowers Protection Act 2001* commenced operation on 1 January 2002. The main objective of the *Whistleblowers Protection Act 2001* (the Act) is to encourage and facilitate the making of disclosures of improper conduct or detrimental action by public officers and public bodies. The Act provides protection to whistleblowers who make disclosures in accordance with the Act, and establishes a system for the matters disclosed to be investigated and for rectifying action to be taken.

3 Statement of Support to Whistleblowers

The Goulburn Broken Catchment Management Authority is committed to the aims and objectives of the *Whistleblowers Protection Act 2001* (the Act). It does not tolerate improper conduct by its employees, officers or members, nor the taking of reprisals against those who come forward to disclose such conduct.

The Goulburn Broken Catchment Management Authority recognises the value of transparency and accountability in its administrative and management practices, and supports the making of disclosures that reveal corrupt conduct, conduct involving a substantial mismanagement of public resources, or conduct involving a substantial risk to public health and safety or the environment.

The Authority will take all reasonable steps to protect people who make such disclosures from any detrimental action in reprisal for making the disclosure. It will also take all necessary measures to afford natural justice to the person who is the subject of the disclosure.

4 Definitions of key terms

Three key concepts in the reporting system are improper conduct, corrupt conduct and detrimental action. Definitions of these terms are set out below.

Public Bodies include:

- All Government Departments and administrative offices; Statutory Authorities; Municipal Councils; Government appointed Boards and Committees; Government owned companies; Universities; TAFE Colleges; Public Hospitals; State funded Residential Care Services; Health Services contractors; and Correctional Services contractors.

Public Officers include:

- Members of Parliament; Councillors; Council employees; Public Servants; University employees; Police Officers; Protective Services Officers; Administrative Staff of the Chief Commissioner of Police; Teachers; and Office holders appointed by Governor in Council or a Minister.

4.1 Improper conduct

A disclosure may be made about improper conduct by a public body or public official. Improper conduct means conduct that is corrupt, a substantial mismanagement of public resources, or conduct involving substantial risk to public health or safety or to the environment. The conduct must be serious enough to constitute, if proved, a criminal offence or reasonable grounds for dismissal.

Examples

*To avoid closure of a town's only industry, an environmental health officer ignores or conceals evidence of illegal dumping of waste.
An agricultural officer delays or declines imposing quarantine to allow a financially distressed farmer to sell diseased stock.
A building inspector tolerates poor practices and structural defects in the work of a leading local builder.*

See 4.2 below for specific examples of corrupt conduct.

4.2 Corrupt conduct

Corrupt conduct means:

- Conduct of any person (whether or not a public official) that adversely affects the honest performance of a public officer's or public body's functions;
- The performance of a public officer's functions dishonestly or with inappropriate partiality;
- Conduct of a public officer, former public officer or a public body that amounts to a breach of public trust;
- Conduct by a public officer, former public officer or a public body that amounts to the misuse of information or material acquired in the course of the performance of their official functions; or
- A conspiracy or attempt to engage in the above conduct.

Examples

*A public officer takes a bribe or receives a payment other than his or her wages or salary in exchange for the discharge of a public duty.
A public officer favours unmeritorious applications for jobs or permits by friends and relatives.
A public officer sells confidential information.*

4.3 Detrimental action

The Act makes it an offence for a person to take detrimental action against a person in reprisal for a protected disclosure. Detrimental action includes:

- Action causing injury, loss or damage;
- Intimidation or harassment; and
- Discrimination, disadvantage or adverse treatment in relation to a person's employment, career, profession, trade or business, including the taking of disciplinary action.

Examples

*A public body refuses a deserved promotion of a person who makes a disclosure.
A public body demotes, transfers, isolates in the workplace or changes the duties of a whistleblower due to the making of a disclosure.
A person threatens, abuses or carries out other forms of harassment directly or indirectly against the whistleblower, his or her family or friends.
A public body discriminates against the whistleblower or his or her family and associates in subsequent applications for jobs, permits or tenders.*

5 The reporting system

5.1 Contact persons within the Goulburn Broken Catchment Management Authority.

Disclosures of improper conduct or detrimental action by the Goulburn Broken Catchment Management Authority or its employees, may be made to the following officers:

The protected disclosure coordinator is: Mark Turner (5820 1105).

Protected disclosure officers are: Carl Walters (5833 5360), Steve Wilson (5820 1137), Peter Howard (5833 5343)

All correspondence, phone calls and emails from internal or external whistleblowers will be referred to the protected disclosure coordinator.

Where a person is contemplating making a disclosure and is concerned about approaching the protected disclosure coordinator or a protected disclosure officer in the workplace, he or she can call the relevant officer and request a meeting in a discreet location away from the workplace.

5.2 Alternative contact persons

A disclosure about improper conduct or detrimental action by the Goulburn Broken Catchment Management Authority or its employees may also be made directly to the Ombudsman:

The Ombudsman Victoria
Level 9, 459 Collins Street (North Tower)
Melbourne Victoria 3000
(DX 210174)
Internet: www.ombudsman.vic.gov.au
Email: ombudvic@ombudsman.vic.gov.au
Tel: 9613 6222
Toll Free: 1800 806 314

Ombudsman: Mr George Brouwer Tel: (03) 9613 6202

The following table sets out where disclosures about persons other than employees of Goulburn Broken Catchment Management Authority should be made.

Person who is the subject of the disclosure	Person/body to whom the disclosure must be made
Employee of a Public Body	That Public Body or the Ombudsman
Member of Parliament (Legislative Assembly)	Speaker of the Legislative Assembly
Member of Parliament (Legislative Council)	President of the Legislative Council
Councilor	The Ombudsman
Chief Commissioner of Police	The Ombudsman or Deputy Ombudsman
Member of the police force	The Ombudsman, Deputy Ombudsman or Chief Commissioner of Police

6 Roles and responsibilities

6.1 Employees

Employees are encouraged to report known or suspected incidences of improper conduct or detrimental action in accordance with these procedures.

All employees of the Goulburn Broken Catchment Management Authority have an important role to play in supporting those who have made a legitimate disclosure. They must refrain from any activity that is, or could be perceived to be, victimisation or harassment of a person who makes a disclosure.

Furthermore, they should protect and maintain the confidentiality of a person they know or suspect to have made a disclosure.

6.2 Protected disclosure officers

Protected disclosure officers will:

- Be a contact point for general advice about the operation of the Act for any person wishing to make a disclosure about improper conduct or detrimental action;
- Make arrangements for a disclosure to be made privately and discreetly and, if necessary, away from the workplace;
- Receive any disclosure made orally or in writing (from internal and external whistleblowers);
- Commit to writing any disclosure made orally;
- Impartially assess the allegation and determine whether it is a disclosure made in accordance with Part 2 of the Act (that is, a protected disclosure);
- Take all necessary steps to ensure the identity of the whistleblower and the identity of the person who is the subject of the disclosure are kept confidential; and
- Forward all disclosures and supporting evidence to the protected disclosure coordinator.

6.3 Protected disclosure coordinator

The protected disclosure coordinator has a central clearinghouse role in the internal reporting system. He or she will:

- Receive all disclosures forwarded from the protected disclosure officers;
- Receive all phone calls, emails and letters from members of the public or employees seeking to make a disclosure;
- Impartially assess each disclosure to determine whether it is a public interest disclosure;
- Refer all public interest disclosures to the Ombudsman;
- Be responsible for carrying out, or appointing an investigator to carry out, an investigation referred to the public body by the Ombudsman;
- Be responsible for overseeing and coordinating an investigation where an investigator has been appointed;
- Appoint a welfare manager to support the whistleblower and to protect him or her from any reprisals;
- Advise the whistleblower of the progress of an investigation into the disclosed matter;
- Establish and manage a confidential filing system;
- Collate and publish statistics on disclosures made;
- Take all necessary steps to ensure the identity of the whistleblower and the identity of the person who is the subject of the disclosure are kept confidential; and
- Liaise with the Chief Executive Officer of the public body.

6.4 Investigator

The investigator will be responsible for carrying out an internal investigation into a disclosure where the Ombudsman has referred a matter to the public body. An investigator may be a person from within an organisation or a consultant engaged for that purpose.

6.5 Welfare manager

The welfare manager is responsible for looking after the general welfare of the whistleblower. The welfare manager will:

- Examine the immediate welfare and protection needs of a whistleblower who has made a disclosure and seek to foster a supportive work environment;
- Advise the whistleblower of the legislative and administrative protections available to him or her;
- Listen and respond to any concerns of harassment, intimidation or victimisation in reprisal for making disclosure; and
- Ensure the expectations of the whistleblower are realistic.

7 Confidentiality

The Goulburn Broken Catchment Management Authority will take all reasonable steps to protect the identity of the whistleblower. Maintaining confidentiality is crucial in ensuring reprisals are not made against a whistleblower.

The Act requires any person who receives information due to the handling or investigation of a protected disclosure, not to disclose that information except in certain limited circumstances. Disclosure of information in breach of section 22 of the Act constitutes an offence that is punishable by a maximum fine of 60 penalty units (\$7,328) or six months imprisonment or both.

The circumstances in which a person may disclose information obtained about a protected disclosure include:

- Where exercising the functions of the public body under the Act;
- When making a report or recommendation under the Act;
- When publishing statistics in the annual report of a public body; and
- In criminal proceedings for certain offences in the Act.

However, the Act prohibits the inclusion of particulars in any report or recommendation that is likely to lead to the identification of the whistleblower. The Act also prohibits the identification of the person who is the subject of the disclosure in any particulars included in an annual report.

The Authority will ensure all files, whether paper or electronic, are kept in a secure room and can only be accessed by the protected disclosure coordinator, protected disclosure officer, the investigator or welfare manager (in relation to welfare matters). All printed material will be kept in files that are clearly marked as a Whistleblower Protection Act matter, and warn of the criminal penalties that apply to any unauthorised divulging of information concerning a protected disclosure. All electronic files will be produced and stored on a stand-alone computer and be given password protection. Backup files will be maintained in line with the Authority's policy. All materials relevant to an investigation, such as tapes from interviews, will also be stored securely with the whistleblower files.

The Goulburn Broken Catchment Management Authority will not email documents relevant to a whistleblower matter and will ensure all phone calls and meetings are conducted in private.

8 Collating and publishing statistics

The protected disclosure coordinator will establish a secure register to record the information required to be published in the annual report, and to generally keep account of the status of whistleblower disclosures. The register will be confidential and will not record any information that may identify the whistleblower.

The register will contain the following information:

- The number and types of disclosures made to public bodies during the year;
- The number of disclosures referred to the Ombudsman for determination as to whether they are public interest disclosures;
- The number and types of disclosed matters referred to the public body by the Ombudsman for investigation;
- The number and types of disclosures referred by the public body to the Ombudsman for investigation;
- The number and types of investigations taken over from the public body by the Ombudsman;
- The number of requests made by a whistleblower to the Ombudsman to take over an investigation by the public body;
- The number and types of disclosed matters that the public body has declined to investigate;
- The number and types of disclosed matters that were substantiated upon investigation and the action taken on completion of the investigation; and
- Any recommendations made by the Ombudsman that relate to the public body.

9 Receiving and assessing disclosures

9.1 Has the disclosure been made in accordance with Part 2 of the Act?

Where a disclosure has been received by the protected disclosure officer or by the protected disclosure coordinator, he or she will assess whether the disclosure has been made in accordance with Part 2 of the Act and is, therefore, a protected disclosure.

9.1.1 Has the disclosure been made to the appropriate person?

For the disclosure to be responded to by the Goulburn Broken Catchment Management Authority, it must concern an employee, member or officer of the Goulburn Broken Catchment Management Authority. If the disclosure concerns an employee, officer or member of another public body, the person who has made the disclosure must be advised of the correct person or body to whom the disclosure should be directed. (See the table in 5.2). If the disclosure has been made anonymously, it should be referred to the Ombudsman.

9.1.2 Does the disclosure contain the essential elements of a protected disclosure?

To be a protected disclosure, a disclosure must satisfy the following criteria:

- Did a natural person (that is, an individual person rather than a corporation) make the disclosure?
- Does the disclosure relate to conduct of a public body or public officer acting in their official capacity?
- Is the alleged conduct either improper conduct or detrimental action taken against a person in reprisal for making a protected disclosure?
- Does the person making a disclosure have reasonable grounds for believing the alleged conduct has occurred?

Where a disclosure is assessed to be a protected disclosure, it is referred to the Protected Disclosure Coordinator. The Protected Disclosure Coordinator will determine whether the disclosure is a public interest disclosure.

Where a disclosure is assessed not to be a protected disclosure, the matter does not need to be dealt with under the Act. The protected disclosure officer will decide how the matter should be responded to in consultation with the protected disclosure coordinator.

9.2 Is the disclosure a public interest disclosure?

Where the protected disclosure officer or coordinator has received a disclosure that has been assessed to be a protected disclosure, the protected disclosure coordinator will determine whether the disclosure amounts to a public interest disclosure. This assessment will be made within 45 days of the receipt of the disclosure.

In reaching a conclusion as to whether a protected disclosure is a public interest disclosure, the protected disclosure coordinator will consider whether the disclosure **shows, or tends to show**, that the public officer to whom the disclosure relates:

- Has engaged, is engaging or proposes to engage in improper conduct in his or her capacity as a public officer; or
- Has taken, is taking or proposes to take detrimental action in reprisal for the making of the protected disclosure.

Where the protected disclosure coordinator concludes that the disclosure amounts to a public interest disclosure, he or she will:

- 1 Notify the person who made the disclosure of that conclusion; and
- 2 Refer the disclosure to the Ombudsman for formal determination as to whether it is indeed a public interest disclosure.

Where the protected disclosure coordinator concludes that the disclosure is not a public interest disclosure, he or she will:

- 1 Notify the person who made the disclosure of that conclusion; and
- 2 Advise that person that he or she may request the public body to refer the disclosure to the Ombudsman for a formal determination as to whether the disclosure is a public interest disclosure, and that this request must be made within 28 days of the notification.

In either case, the protected disclosure coordinator will make the notification and the referral within 14 days of the conclusion being reached by the public body. Notification to the whistleblower is not necessary where the disclosure has been made anonymously.

10 Investigations

10.1 Introduction

Where the Ombudsman refers a protected disclosure to the Goulburn Broken Catchment Management Authority for investigation, the protected disclosure coordinator will appoint an investigator to carry out the investigation.

The objectives of an investigation will be:

- To collate information relating to the allegation as quickly as possible. This may involve taking steps to protect or preserve documents, materials and equipment;
- To consider the information collected and to draw conclusions objectively and impartially;
- To maintain procedural fairness in the treatment of witnesses and the person who is the subject of the disclosure; and
- To make recommendations arising from the conclusions drawn concerning remedial or other appropriate action.

10.2 Terms of reference

Before commencing an investigation, the protected disclosure coordinator will draw up terms of reference and obtain authorisation for those terms from the Chief Executive Officer. The terms of reference will set a date by which the investigation report is to be concluded, and will describe the resources available to the investigator to complete the investigation within the time set. The protected disclosure coordinator may approve, if reasonable, an extension of time requested by the investigator. The terms of reference will require the investigator to make regular reports to the protected disclosure coordinator who, in turn, is to keep the Ombudsman informed of general progress.

10.3 Investigation plan

The investigator will prepare an investigation plan for approval by the protected disclosure coordinator. The plan will list the issues to be substantiated and describe the avenue of inquiry. It will address the following issues:

- What is being alleged?
- What are the possible findings or offences?
- What are the facts in issue?
- How is the inquiry to be conducted?
- What resources are required?

At the commencement of the investigation, the whistleblower should be:

- Notified by the investigator that he or she has been appointed to conduct the investigation;
- Asked to clarify any matters; and
- Provide any additional material he or she might have.

The investigator will be sensitive to the whistleblower's possible fear of reprisals and will be aware of the statutory protections provided to the whistleblower.

10.4 Natural Justice

The principles of natural justice will be followed in any investigation of a public interest disclosure. The principles of natural justice concern procedural fairness and ensure a fair decision is reached by an objective decision maker. Maintaining procedural fairness protects the rights of individuals and enhances public confidence in the process.

The Goulburn Broken Catchment Management Authority will have regard to the following issues in ensuring procedural fairness:

- The person who is the subject of the disclosure is entitled to know the allegations made against him or her and must be given the right to respond. (This does not mean the person must be advised of the allegation as soon as the disclosure is received or the investigation has commenced);
- If the investigator is contemplating making a report adverse to the interests of any person, that person should be given the opportunity to put forward further material that may influence the outcome of the report and that person's defence should be fairly set out in the report;
- All relevant parties to a matter should be heard and all submissions should be considered;
- A decision should not be made until all reasonable inquiries have been made;
- The investigator or any decision maker should not have a personal or direct interest in the matter being investigated;
- All proceedings must be carried out fairly and without bias. Care should be taken to exclude perceived bias from the process; and
- The investigator must be impartial in assessing the credibility of the whistleblowers and any witnesses. Where appropriate, conclusions as to credibility should be included in the investigation report.

10.5 Conduct of the investigation

The investigator will make contemporaneous notes of all discussions and phone calls, and all interviews with witnesses will be taped. All information gathered in an investigation will be stored securely. Interviews will be conducted in private and the investigator will take all reasonable steps to protect the identity of the whistleblower.

Where disclosure of the identity of the whistleblower cannot be avoided, due to the nature of the allegations, the investigator will warn the whistleblower and his or her welfare manager of this probability.

It is in the discretion of the investigator to allow any witness to have legal or other representation or support during an interview. If a witness has a special need for legal representation or support, permission should be granted.

10.6 Referral of an investigation to the Ombudsman

The protected disclosure coordinator will make a decision regarding the referral of an investigation to the Ombudsman where, on the advice of the investigator:

- The investigation is being obstructed by, for example, the non-cooperation of key witnesses; or
- The investigation has revealed conduct that may constitute a criminal offence.

10.7 Reporting requirements

The protected disclosure coordinator will ensure the whistleblower is kept regularly informed concerning the handling of a protected disclosure and an investigation.

The protected disclosure coordinator will report to the Ombudsman about the progress of an investigation.

Where the Ombudsman or the whistleblower requests information about the progress of an investigation, that information will be provided within 28 days of the date of the request.

11 Action Taken After An Investigation

11.1 Investigator's final report

At the conclusion of the investigation, the investigator will submit a written report of his or her findings to the protected disclosure coordinator. The report will contain:

- The allegation/s;
- An account of all relevant information received and, if the investigator has rejected evidence as being unreliable, the reasons for this opinion being formed;
- The conclusions reached and the basis for them; and
- Any recommendations arising from the conclusions.

Where the investigator has found that the conduct disclosed by the whistleblower has occurred, recommendations made by the investigator will include:

- The steps that need to be taken by the Goulburn Broken Catchment Management Authority to prevent the conduct from continuing or occurring in the future; and
- Any action that should be taken by the Authority to remedy any harm or loss arising from the conduct. This action may include bringing disciplinary proceedings against the person responsible for the conduct, and referring the matter to an appropriate authority for further consideration.

The report will be accompanied by:

- The transcript or other record of any oral evidence taken, including tape recordings; and
- All documents, statements or other exhibits received by the officer and accepted as evidence during the course of the investigation.

Where the investigator's report is to include an adverse comment against any person, that person will be given the opportunity to respond and his or her defence will be fairly included in the report.

The report will not disclose particulars likely to lead to the identification of the whistleblower.

11.2 Action to be taken

If the protected disclosure coordinator is satisfied that the investigation has found that the disclosed conduct has occurred, he or she will recommend to the Chief Executive Officer the action that must be taken to prevent the conduct from continuing or occurring in the future. The protected disclosure coordinator may also recommend that action be taken to remedy any harm or loss arising from the conduct.

The protected disclosure coordinator will provide a written report to the Minister for Environment and Conservation, the Ombudsman and the whistleblower setting out the findings of the investigation and any remedial steps taken.

Where the investigation concludes that the disclosed conduct did not occur, the protected disclosure coordinator will report these findings to the Ombudsman and to the whistleblower.

12 Managing the Welfare of the Whistleblower

12.1 Commitment to protecting whistleblowers

The Goulburn Broken Catchment Management Authority is committed to the protection of genuine whistleblowers against detrimental action taken in reprisal for the making of protected disclosures.

The protected disclosure coordinator is responsible for ensuring whistleblowers are protected from direct and indirect detrimental action, and that the culture of the workplace is supportive of protected disclosures being made.

The protected disclosure coordinator will appoint a welfare manager to all whistleblowers who have made a protected disclosure. The welfare manager will:

- Examine the immediate welfare and protection needs of a whistleblower who has made a disclosure and, where the whistleblower is an employee, seek to foster a supportive work environment;
- Advise the whistleblower of the legislative and administrative protections available to him or her;
- Listen and respond to any concerns of harassment, intimidation or victimisation in reprisal for making disclosure;
- Keep a contemporaneous record of all aspects of the case management of the whistleblower including all contact and follow-up action; and
- Ensure the expectations of the whistleblower are realistic.

All employees will be advised that it is an offence for a person to take detrimental action in reprisal for a protected disclosure. The maximum penalty is a fine of 240 penalty units (\$29,313) or two years imprisonment or both. The taking of detrimental action in breach of this provision can also be grounds for making a disclosure under the Act and can result in an investigation.

Detrimental action includes:

- Causing injury, loss or damage;
- Intimidation or harassment; and
- Discrimination, disadvantage or adverse treatment in relation to a person's employment, career, profession, trade or business (including the taking of disciplinary action).

12.2 Keeping the whistleblower informed

The protected disclosure coordinator will ensure the whistleblower is kept informed of action taken in relation to his or her disclosure, and the time frames that apply. The whistleblower will be informed of the objectives of an investigation, the findings of an investigation, and the steps taken by the Goulburn Broken Catchment Management Authority to address any improper conduct that has been found to have occurred. The whistleblower will be given reasons for decisions made by the Goulburn Broken Catchment Management Authority in relation to a protected disclosure. All communication with the whistleblower will be in plain English.

12.3 Occurrence of detrimental action

If a whistleblower reports an incident of harassment, discrimination or adverse treatment that would amount to detrimental action taken in reprisal for the making of the disclosure, the welfare manager will:

- Record details of the incident;
- Advise the whistleblower of his or her rights under the Act; and
- Advise the protected disclosure coordinator or chief executive officer of the detrimental action.

The taking of detrimental action in reprisal for the making of a disclosure can be an offence against the Act as well as grounds for making a further disclosure. Where such detrimental action is reported, the protected disclosure coordinator will assess the report as a new disclosure under the Act. Where the protected disclosure coordinator is satisfied that the disclosure is a public interest disclosure, he or she will refer it to the Ombudsman. If the Ombudsman subsequently determines the matter to be a public interest disclosure, the Ombudsman may investigate the matter or refer it to another body for investigation as outlined in the Act.

12.4 Whistleblowers implicated in improper conduct

Where a person who makes a disclosure is implicated in misconduct, the Goulburn Broken Catchment Management Authority will handle the disclosure and protect the whistleblower from reprisals in accordance with the Act, the Ombudsman's guidelines and these procedures. The Authority acknowledges that the act of whistleblowing should not shield whistleblowers from the reasonable consequences flowing from any involvement in improper conduct.

Section 17 of the Act specifically provides that a person's liability for his or her own conduct is not affected by the person's disclosure of that conduct under the Act. However, in some circumstances, an admission may be a mitigating factor when considering disciplinary or other action.

The Chief Executive Officer will make the final decision on the advice of the protected disclosure coordinator as to whether disciplinary or other action will be taken against a whistleblower. Where disciplinary or other action relates to conduct that is the subject of the whistleblower's disclosure, the disciplinary or other action will only be taken after the disclosed matter has been appropriately dealt with.

In all cases where disciplinary or other action is being contemplated, the Chief Executive Officer must be satisfied that it has been clearly demonstrated that:

- The intention to proceed with disciplinary action is not causally connected to the making of the disclosure (as opposed to the content of the disclosure or other available information);
- There are good and sufficient grounds that would fully justify action against any non-whistleblower in the same circumstances; and
- There are good and sufficient grounds that justify exercising any discretion to institute disciplinary or other action.

The protected disclosure coordinator will thoroughly document the process including recording the reasons why the disciplinary or other action is being taken, and the reasons why the action is not in retribution for the making of the disclosure. The protected disclosure coordinator will clearly advise the whistleblower of the proposed action to be taken, and of any mitigating factors that have been taken into account.

13 Management of the Person Against Whom a Disclosure Has Been Made

The Goulburn Broken Catchment Management Authority recognises that employees against whom disclosures are made must also be supported during the handling and investigation of disclosures.

The Authority will take all reasonable steps to ensure the confidentiality of the person who is the subject of the disclosure during the assessment and investigation process. Where investigations do not substantiate disclosures, the fact that the investigation has been carried out, the results of the investigation, and the identity of the person who is the subject of the disclosure will remain confidential.

The protected disclosure coordinator will ensure the person who is the subject of any disclosure investigated by or on behalf of a public body is:

- Informed as to the substance of the allegations;
- Given the opportunity to answer the allegations before a final decision is made;
- Informed as to the substance of any adverse comment that may be included in any report arising from the investigation; and has
- His or her defence set out fairly in any report.

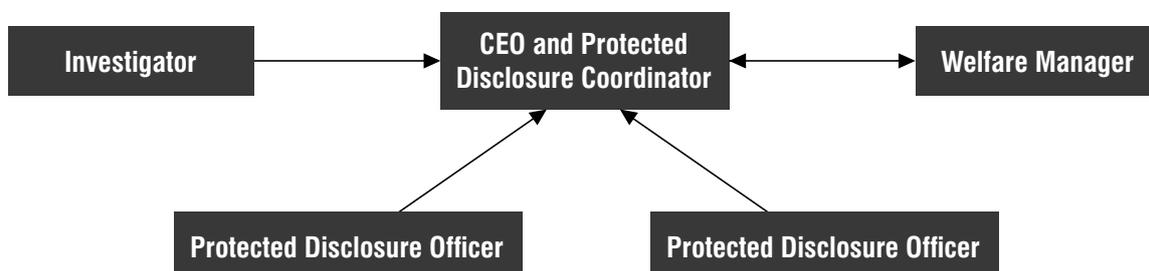
Where the allegations in a disclosure have been investigated, and the person who is the subject of the disclosure is aware of the allegations or the fact of the investigation, the protected disclosure coordinator will formally advise the person who is the subject of the disclosure of the outcome of the investigation.

The Goulburn Broken Catchment Management Authority will give its full support to a person who is the subject of a disclosure where the allegations contained in a disclosure are clearly wrong or unsubstantiated. If the matter has been publicly disclosed, the Chief Executive Officer of the Authority will consider any request by that person to issue a statement of support setting out that the allegations were clearly wrong or unsubstantiated.

14 Criminal Offences

The Goulburn Broken Catchment Management Authority will ensure officers appointed to handle protected disclosures and all other employees are aware of the following offences created by the Act:

- 1 It is an offence for a person to take detrimental action against a person in reprisal for a protected disclosure being made. The Act provides a maximum penalty of a fine of 240 penalty units (\$29,313) or two years imprisonment or both.
- 2 It is an offence for a person to divulge information obtained as a result of the handling or investigation of a protected disclosure without legislative authority. The Act provides a maximum penalty of 60 penalty units (\$7,328) or six months imprisonment or both.
- 3 It is an offence for a person to obstruct the Ombudsman in performing his/her responsibilities under the Act. The Act provides a maximum penalty of 240 penalty units (\$29,313) or two years imprisonment or both.
- 4 It is an offence for a person to knowingly provide false information under the Act with the intention that it be acted on as a disclosed matter. The Act provides a maximum penalty of 240 penalty units (\$29,313) or two years imprisonment or both.



Annexure B: Model register

The register below records information about disclosures made to the Goulburn Broken Catchment Management Authority that have been determined to be protected disclosures.

15 Review

These procedures will be reviewed annually to ensure they meet the objectives of the Act and accord with the Ombudsman's guidelines.

Annexure A – Reporting structure for the Goulburn Broken CMA

	File A	File B	File C	File D	File E
Date Disclosure Received					
Type of Disclosure					
Is Disclosure a Public Interest Disclosure					
Date Above Determination Made					
Date Whistleblower (WB) Informed of Determination					
Date Disclosure Referred to the Ombudsman					
Determination Made by Ombudsman					
Was The Investigation Referred Back to The Ombudsman					
Did The Ombudsman Take Over The Investigation					
Did the WB * Request The Ombudsman To Take Over The Investigation					
Findings Of The Public Body					
Recommendations Made By The Ombudsman					
Date Reporting Requirements Satisfied.					

*WB refers to the Whistleblower

Note: The value of one penalty unit is \$122.14 as at 1 July 2011.

Appendix 8: Disclosure index

The Annual Report of the Goulburn Broken CMA is prepared in accordance with all relevant Victorian legislation. This index facilitates identification of the Authority compliance with statutory disclosure requirements.

Information relevant to the headings listed in Financial Reporting Direction 22B of the *Financial Management Act 1994* is held at the Authority's office and is available on request, subject to the *Freedom of Information Act 1982*.

Legislation	Disclosure required	page
Ministerial directions		
Report of operations		
Financial reporting directions affecting the financial statements		
03A	Accounting for Dividends	n.a.
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8B	Consistency of Budget and Department Reporting	n.a.
09A	Department Disclosure of Administered Assets and Liabilities by Activity	n.a.
10	Disclosure Index	128
11	Disclosure of Ex-gratia Payments	n.a.
13	Disclosure of Parliamentary Appropriations	n.a.
17A	Long Service Leave Wage Inflation and Discount Rates	71
19	Private Provision of Public Infrastructure	n.a.
20A	Accounting for State Motor Vehicle Lease Arrangements prior 1 February 2004	n.a.
21B	Responsible Person and Executive Officer Disclosures in the Financial Report	75
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102	Inventories	60
103D	Non-Current Physical Assets	61
104	Foreign Currency	n.a.
105A	Borrowing Costs	73
106	Impairment of Assets	61
107	Investment Properties	n.a.
108	Classification of Entities as For-Profit	n.a.
109	Intangible Assets	n.a.
110	Cash Flow Statements	59
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113	Investments in Subsidiaries, Jointly Controlled Entities and Associates	n.a.
114A	Financial Instruments – General Government Entities and Public Non Financial Corporations	77
115	Non-Current Physical Assets – First-time Adoption	n.a.
116	Financial Instruments-PFCs	n.a.
117	Contributions of Existing Non-Financial Assets to Third Parties	n.a.
118B	Land under Declared Roads	n.a.
119	Contribution by Owners	59
121F	Accounting and Reporting Pronouncements Applicable to 2011-2012 Reporting Period	60
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Glossary of terms

Terms

Biolink: areas identified for targeted action to increase ecological function and connectivity, improving the potential of plants and animals to disperse, recolonise, evolve and adapt naturally.

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.

Inter-Valley Transfers means bulk transfers of water from the Goulburn water supply system to supply water users in the Murray water supply system.

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
ARI	Arthur Rylah Institute
CaLP	Catchment and Land Protection Act 1994
CEO	Chief Executive Officer
CfoC	Caring for our Country
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
EPA	Environment Protection Authority
GB RRHS	Goulburn Broken Regional River Health Strategy
GL	Gigalitre
G-MW	Goulburn-Murray Water
GST	Goods and Services Tax
ha	hectare
IC	Implementation Committee
IT	Information Technology
km	kilometre
KPI	Key Performance Indicator
LaBIF	Land and Biodiversity Implementation Forum
LWMP	Land and Water Management Plan
ML	Megalitre
MLC	Member of the Legislative Council
MoU	Memorandum of Understanding
no.	Number
NRM	Natural resource management
NRIP	Natural Resources Investment Program
NVIRP	Northern Victoria Irrigation Renewal Project
RCS	Regional Catchment Strategy
RSMP	Regional Salinity Management Plan
SIPAG	Sustainable Irrigation Program Advisory Group
SIR	Shepparton Irrigation Region
SIRCIS	Shepparton Irrigation Region Catchment Implementation Strategy
TFN	Trust For Nature
VEWH	Victorian Environmental Water Holder
YYNAC	Yorta Yorta Nation Aboriginal Corporation

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Recognising a major NRM contribution

By Amanda McLaren

Chris Doyle



Chris Doyle has been a key leader in community engagement and has had a long involvement in river improvement, and later broad scale catchment management.

Born in New Zealand, Chris grew up in both the North and South Island.

Chris's involvement in natural resource management in the Goulburn Broken Catchment dates back to the early 1980's when he was a member of the Mid Goulburn Catchment Coordinating Group, the first group to introduce an integrated catchment management plan.

Since then, Chris has been a member of the Mid Goulburn River Management Board, the North Central Waterways Management Authority, and the Upper Goulburn Waterway Authority (UGWA) including a period as Deputy Chair under Ian Wood.

More recently Chris was member for the Upper Goulburn Implementation Committee (UGIC) from 1998 – 2008 including holding the position of Chair for 1998-2005 and 2006-2007. In June 2010, Chris retired from the amalgamated Broken Goulburn

Implementation Committee (BGIC), which he was a member from 2008-2010.

Chris has played an instrumental role in many of these committees with major roles during their transition phases. Chris has seen the transition between UGWA and UGIC along with the recent transition from UGIC to the larger BGIC.

The consistency of Chris's involvement has ensured that lessons learned in the past were communicated to the new committees and Chris contributed to continuous improvement in community engagement and catchment planning.

Chris has a university degree in Agricultural Commerce and Farm Management. Chris owns his own Farm Contracting business and manages the successful 'Lyndale Park' 210 hectare village farm near the township of Tallarook.

Chris's achievements and contributions were acknowledged at a Dinner held on 7 June 2010 at the Trawool Resort.

Thank you Chris for your ongoing contribution to natural resource management in the Goulburn Broken Catchment.

Staff list 2011-12

Amanda McClaren	Corey Wilson	Jasmine Dick	Mark Cotter	Shannon Crawford
Annie Squires	Darelle Siekman	Jenny Wilson	Mark Turner	Simon Casanelia
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Bianca Sulejman	Deanne Ludlow	Jo Wood	Meegan Judd	Steve Wilson
Carl Walters	Dianne Guy	Karen Brisbane	Megan McFarlane	Sue Kosch
Carla Miles	Fiona Lloyd	Kate Brunt	Melanie Haddow	Sue Williams
Casey Damen	Fleur Baldi	Kate Hill	Neville Atkinson	Tim Barlow
Charlie Sexton	Gaye Sutherland	Kate Marr	Peter Howard	Tom O'Dwyer
Chris Burnett	Geoff Brennan	Kate Pendergast	Rachael Spokes	Tony Kubeil
Chris Nicholson	Geoff Earl	Katie Warner	Rhiannon Apted	Travis Morgan
Chris Norman	Guy Tierney	Keith Chalmers	Richard Warburton	Vanessa Keogh
Christine Glassford	Helen Murdoch	Keith Ward	Rosalba Camera	Vicki Mackenzie
Cindy Doherty	Janice Mentiplay-Smith	Kerry McFarlane	Sam Ward	Wayne Tennant
Collin Tate	Jason Head	Kirsten Roszak	Samantha Moreno	



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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