



# ANNUAL REPORT 2013-14

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 130

## 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 2013-14 to 2017-18 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](http://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 2014 to guarantee consideration.

A feedback form to help direct comments is available at the website. [www.gbcma.vic.gov.au](http://www.gbcma.vic.gov.au)

### Front cover:

#### Main photo

- Farm Water Program works at this Yeilima property saved a total of 82ML. Photograph: David Lawler

#### Inset photos (from left to right)

- Funding from the Victorian Environmental Partnerships Program for the Northern Eco-Connections project, a joint project between Goulburn Broken, North Central and North East CMAs was announced by the Minister for Environment and Climate Change Ryan Smith in December. Pictured: Brad Drust, Mel Haddow, Steve Wilson, Jane Young, Peter Sacco and Carl Gray. Photograph: Simon Dallinger.
- Good relationships and local knowledge meant agencies were able to quickly swing in to action to help communities affected by the February fires. Bhupinder Minhas is pictured at Black Swamp near Wunghnu. Photograph: Fiona Lloyd
- The Victorian Government announced \$2 million of support for the Fruit Industry Employment Program in August. Thirty people including (back) Darren Watson and Krishnan Ramankutti and (front) Kerri Wilson and Alf Verduci have been involved in the program. Photograph: Fiona Lloyd.
- Community input helped shape the Goulburn Broken Waterway Strategy, which was updated during 2013-14. Pictured is Shayne Tolley. Photograph: Mark Turner.



## Contents

### Overview

- 1 Chair's review
- 3 Chief Executive Officer's report
- 5 Operational highlights
- 6 Goulburn Broken Profile
- 11 Key events
- 13 Long-term scorecard
- 14 Outputs achieved 2004-05 to 2013-14 and forecast 2014-15
- 16 Annual scorecards

### The Catchment

- 18 Community engagement
- 22 Planning and responding
- 31 Climate change

### The Environment

- 35 Sustainable irrigation
- 42 River and wetland health
- 51 Floodplain management
- 55 Land and biodiversity
- 57 Biodiversity
- 64 Land health
- 67 Invasive plants and animals

### The Business

- 70 Human resources (including occupational health and safety)
- 77 Environmental footprint
- 80 Governance
- 84 Board directors and officers
- 86 Compliance
- 92 CaLP Act requirements (Headline theme reports)
- 95 Corporate plan key performance indicators

### Finance

- 98 Financial results summary
- 102 Financial statements

### Appendix

- 130 Appendix 1 - Understanding progress and ratings
- 132 Appendix 2 - Major strategic references
- 134 Appendix 3 - Roles of catchment partners
- 137 Appendix 4 - Outputs - detailed list of achievements
- 139 Appendix 5 - Map of works
- 140 Appendix 6 - Map of properties covered by a whole farm plan
- 141 Appendix 7 - Map of farm water works
- 142 Appendix 8 - Compliance with *Protected Disclosures Act 2012*
- 143 Appendix 9 - Disclosure Index

### Other

- 145 Glossary of terms
- 146 Abbreviations
- 147 Index
- Inside Back Cover
  - Recognising a major natural resource management contribution – Allen Canobie
  - List of Staff 2013-14
- Back Cover
  - Contacts and office locations

### Case studies

- 21 Waterwatch in the Goulburn Broken Region
- 21 Fruit Industry Employment Program
- 30 Good relationships help with fire recovery
- 41 Farm Water Program
- 50 Opportunities flow from river study
- 54 Building community resilience from major floods
- 63 Protecting habitat for Turquoise Parrot
- 69 Woka Wolla working on country
- 76 Sammi the Squirrel Glider and the Fairley Tree



## Chair's review



While the Goulburn Broken Catchment Management Authority (CMA) and its partners have continued to produce strong onground results, exceeding most targets, my first year as Chair has also been an important year for updating the strategic framework that guides investment in the Catchment.

This initial year of implementing our six-year Goulburn Broken Regional Catchment Strategy (RCS) is driven by knowledge that greater community and environmental resilience only comes from locally owned solutions to problems and locally created opportunities for action. The Goulburn Broken CMA is transitioning towards investment based on the six 'social-ecological systems' identified in the RCS. These systems are deliberately defined at a scale that is sensible to local communities when significant investment decisions are made. Many stakeholders within each system were consulted during 2013-14. We were pleased to receive approval in October 2013, of \$4.6 million of funding from the State Government to invest in the delivery of the RCS through the Victorian Waterway Management Program, Sustainable Irrigation Program and Victorian Landcare Program. This investment is critical to our ability to meet our legislative requirements, and also work with our local communities to support their contribution towards the RCS.

Following on from the launch of the Victorian Waterway Management Strategy, and linking closely to the RCS, the second generation Goulburn Broken Waterway Strategy was completed in 2014 for approval by the Minister for Water in the first half of 2014-15. This Strategy incorporates wetlands for the first time, capturing the needs of important native vegetation communities and waterbird breeding sites across the catchment. Lessons learnt from the drought and recent fires and floods position the region well for investing in works to improve the resilience of our rivers and wetlands. The Goulburn Broken CMA has also developed robust processes for responding to the effects of natural disasters and other water-related emergencies, such as blackwater events.

### Working with our communities to increase resilience

The Goulburn Broken CMA's interactions with communities are extremely dynamic and vary across the Catchment, reflecting how quickly circumstances are changing. We are vigilant in revisiting our engagement processes and outcomes to ensure community organisations and members are supported by the most appropriate means and we update our Community Engagement Strategy annually.

I am pleased that the Australian Government is investing \$16.9 million in the Goulburn Broken Catchment through the five-year Regional Delivery Program, with 35 per cent going directly to landholders and community groups for delivering onground projects.

In 2013-14, community natural resource management groups that were funded to undertake onground works

leveraged \$1.60 for every \$1 invested by the Goulburn Broken CMA from Victorian and Australian Government programs. Grant agreements with 61 community groups were entered into.

Unfortunately some of our communities have continued to be hit by impacts from recent climate-related extremes. During February, a fire in the Catchment's south near Kilmore covering approximately 3,400 hectares within the Goulburn Broken Catchment and an almost 10,000 hectare fire around Wunghnu and Numurkah in the north destroyed habitat, farm infrastructure and pastures. In this instance, the Goulburn Broken CMA was able to swing the Victorian State Government funded Fruit Industry Employment Program crews into the Wunghnu area within 24 hours and fast-track grants to support farmers through the South West Goulburn Landcare Network in the south.

As documented by the Intergovernmental Panel on Climate Change, climate-related events are likely to become more intense and more frequent, making it critical that the Catchment's economy, community and environment are supported to become more resilient to such events.

Our ties with Traditional Owners continue to strengthen through their involvement in implementing the Australian Government's Regional Delivery projects. Indigenous enterprises were supported to undertake important works on Country in 2013-14.

We were very pleased to provide significant support for the Yorta Yorta Whole of Country Action Plan 2012-17 and to sign a memorandum of understanding between the Goulburn Broken CMA and the Yorta Yorta Nation Aboriginal Corporation. This will generate further onground projects based on traditional ecological knowledge and commit the CMA to supporting capacity building of traditional owners.

### Productive and environmental benefits from making the most of every drop

Our Catchment receives inflows of 3,500 gigalitres, representing 11 per cent of the Murray Darling Basin's total. This makes the use of water for productive and environmental purposes critical to both our Catchment and downstream. To this end, we have continued to work closely with partner agencies and the community at Commonwealth, State, regional and local levels in developing and implementing the Farm Water Program, which modernises farm irrigation infrastructure and integrates farm-scale water needs with those of Victoria and the broader Murray-Darling Basin.

We have completed 379 of a possible 381 Farm Water Program projects from Rounds 1 and 2, at a cost of \$96 million, saving 52 gigalitres of water. At least half of the saved water is returned to the environment. Preliminary case studies indicate that the average benefit/cost ratio for farmer participants is around 1.6. This has provided a positive impact in the region, with farmers identifying pasture production increases, significant labour savings when irrigating and improved water use efficiency.

During the year we welcomed a further \$100 million investment from the Victorian Government in farm irrigation upgrades through the Victorian Farm Modernisation Program, an important contributor to the region's ability to continue to be a productive and profitable agricultural region.

We are becoming increasingly adept at managing our environmental water allocations, with many opportunities during 2013-14 for aligning favourable weather conditions with community needs to release water down our waterways. We adapted our plans several times as conditions changed and occasionally held water back because of risks to private and public assets. We have made great advances in communicating the reasons behind our actions to a very large number of interested stakeholders, including a focus on anglers. More than one quarter of all Victorian inland recreational anglers prefer to fish in the Goulburn Broken Catchment.

### Future funding to support a healthy, resilient and increasingly productive landscape

Industrialisation and urbanisation in emerging economies is resulting in increased demand for our commodities, especially food for Asia. As this creates significant new opportunities, the Goulburn Broken CMA is working with private industry and others to sustain the natural resource base on which production depends.

The almost \$2 billion of agricultural produce from the Goulburn Broken Catchment each year represents 15 per cent of the State's total agricultural production. It is clear that our Catchment's future depends on our land and water-based industries and these are undergoing significant change, due largely to economics driven by changing markets and increased input costs.

From the devastating natural disasters over the last 10 years, we now have evidence that Goulburn Broken CMA's works, particularly on waterways, have substantially increased the resilience of our ecosystems. Board and management will continue building flexibility into approaches for implementing the RCS, which will enable us to most effectively use additional resources that may become available; natural event impacts will be further reduced and our responses will be rapid.

We look forward to the roll-out of the Australian Government's National Landcare Program and the support that can be provided to community natural resource management groups. We anticipate current budget levels to be similar in the next few years as we implement the RCS. We aim to extend and deepen our extensive relationships with philanthropists, corporate sponsors and industry and government investors by connecting them with our long-established networks of local and regional community groups and agencies.

We have created greater service delivery efficiencies and certainty for community natural resource management groups by the development of a comprehensive regional operating agreement with Department of Environment and Primary Industries (DEPI), Parks Victoria and the North East CMA, with the joint intent of expanding it to other natural resource management delivery agencies in the Catchment. We are also maximising value for our communities through a new memorandum of understanding with the North East and North Central CMAs, which enables us to share staff resources, especially in times of natural disasters, as well as for business processes when technical expertise is required to meet statutory responsibilities.

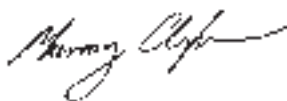
### Thank you

I congratulate and thank my fellow Board members for your passion, dedication and support during 2013-14. I especially acknowledge the contributions of the previous Chair, Peter Ryan and Director Russell Pell who finished their terms in September 2013. Thank you also to Director Rien Silverstein for her contribution before stepping down in April 2014. All ongoing Directors, along with our new Directors Adrian Weston and Lisa McKenzie, will continue to play significant roles in the success of the Authority.

I also wish to record my great appreciation of the leadership, dedication and commitment to the Authority provided by Chief Executive Officer Chris Norman, the management team, all of the staff, and our loyal community, industry and partner organisations. Thank you.

### Report of Operations

In accordance with the Financial Management Act 1994, I am pleased to present the Report of Operations for the Goulburn Broken Catchment Management Authority for the year ending 30 June 2014.



Murray Chapman

Chair

## Chief Executive Officer's report



I am honoured to report annual results for the fifth time as Chief Executive Officer of the Goulburn Broken CMA and for the first time against the Catchment's renewed six-year Regional Catchment Strategy (RCS).

During 2013-14, the Goulburn Broken CMA continued to deliver strong results for direct works onground to enhance and protect land, water and biodiversity in our Catchment via our many regional and local partners, especially farmers.

The CMA's priorities are focused on helping communities and associated ecosystems increase their resilience, consistent with the long-term objectives of the RCS. Some of the key achievements over the last 12 months that will contribute to the implementation of the strategic objectives of the RCS are described below.

### Adapting to water policy reform

Water policy reform is generating water savings that benefit farmers, community and the environment. Associated responsibilities of the Goulburn Broken CMA, such as the delivery of environmental water to improve the aquatic and riparian environment continue to grow in importance. In 2013-14, 714 gigalitres of environmental water was delivered, in conjunction with Victorian and Commonwealth Environmental Water Holders, the Murray-Darling Basin Authority and Goulburn-Murray Water. These flows were provided to support fish, macroinvertebrates and vegetation in the lower Goulburn River, the lower Broken Creek, key wetlands, as well as for waterbird breeding in the Barmah-Millewa Forest.

Over the past 12 months, the Goulburn Broken CMA has made significant advances in understanding how to manage environmental water while being sensitive to the needs of other water users. This has resulted in a targeted communication and engagement effort focused on the more than 25 per cent of the State's inland recreational fishermen who prefer to fish in the Goulburn system, and the landholders adjacent to water bodies who can be significantly affected by these activities, requiring that all information is always timely and accurate.

Supporting increased farm production, the Farm Water Program has enabled the region's irrigators across the northern part of Victoria to save another 27 gigalitres of water during 2013-14, taking the Program's total savings to 52 gigalitres since it began in 2010. This has been achieved through 379 irrigators upgrading their irrigation infrastructure and integrating it with the modernised regional delivery system. This was made possible by investment of \$96 million through the Victorian and Australian Governments.

### Adapting to land-use changes

Changes to the way that land is used across the Catchment results in both threats and opportunities to Catchment condition.

The preparation of many flood plans with local communities over the last decade is resulting in improved environmental and social outcomes through vastly improved planning and flood mitigation measures. This practical example of increasing community resilience includes flood studies for Mansfield, Flowerdale and Numurkah in 2013-14, meaning that most major Urban Centres will now be better prepared for major floods. Better and more efficient floodplain and statutory planning processes are expected following a memorandum of understanding between the North Central, North East and Goulburn Broken CMAs. This approach is consistent with our ongoing service delivery efficiency drive.

In 2013-14 the Goulburn Broken CMA also played a significant role in the completion of the Hume Regional Growth Plan ensuring key environmental assets as well as risks are considered in future land use planning.

### Responding to increasing farm production

Agriculture is a significant contributor to the Catchment economy, with irrigation contributing two-thirds of the \$1.77 billion of production (2011). For this reason, ensuring that the natural resource base upon which agriculture production depends is sustained and enhanced is critical.

Across the Catchment, the Goulburn Broken CMA has supported 20 groups and approximately 870 landholders to improve their soil health, which is critical if we are expecting to produce more from it in the long term. This work is funded by a five-year, \$4.3 million project through the Australian Government's Regional Delivery Program.

The Goulburn Broken CMA remains very conscious of its responsibility in working with communities and landholders to improve the outlook for biodiversity, not only for the future of native species themselves. With more than two-thirds of our landholders actively managing native vegetation, we were not surprised that agreements to revegetate and enhance an additional 2,000 hectares were put in place across the Catchment through Australian Government funding in 2013-14.

### Adapting to climate variability

Changes in climate have caused, and will continue to cause, impacts on the Catchment's natural and human systems including impacting on the frequency and extent of climate-related extremes, such as heat waves, droughts, floods and bushfires. The Goulburn Broken CMA has experience in assisting communities and ecosystems recover quickly as a result of natural disasters and events over the past decade. This was evident in early 2014 when two large bushfires in the north and south of the Catchment caused widespread damage to river frontages, including significant lengths of flood recovery fencing though the Broken Creek system. The CMA was able to quickly respond, including bringing together key partners in response to emerging water quality and river health issues and installing real-time water quality monitoring stations before Kinnairds and Black Swamps were provided with 179 and 50 megalitres of environmental water respectively. It is pleasing to report that no water quality problems arose.

The Goulburn Broken CMA has embarked on major climate change planning activities this year funded through the Australian Government 'Regional NRM Planning for Climate Change' fund, and undertaken in partnership with the North East CMA. The work will enable the CMA to better integrate climate change adaptation supporting the implementation of the RCS, and will incorporate climate change mitigation and adaptation strategies that can maximise opportunities for carbon sequestration and climate change adaptation activities in the Catchment.

### Embedding resilience

Resilience is the ability of the Catchment's people and environment to absorb shock or significant disturbance while continuing to function in a desired way. Consistent with the RCS priority to plan and implement at scales that make sense from both community and ecosystem perspectives, the Goulburn Broken CMA has been extensively consulting community stakeholders and partner agencies to identify priorities and needs, and document these in 'Local Plans'. Communities within the six local social-ecological system areas identified in the RCS have very different planning and implementation needs and we are now focusing on tailoring efforts to more tightly meet the needs of these areas, while still satisfying those of major investors.

The approach being taken to use resilience thinking and planning at the social-ecological system scale to underpin the RCS is being globally recognised. This is providing significant opportunities to share our approach and learn from others both nationally and internationally. An example of this was the presentation I gave in May at the 2014 International Resilience Conference in France.

### Strengthening partnerships

Partnerships with community, industry and government is critical to the achievement of the Vision for the Catchment. In 2013-14, the Australian Government invested \$3.85 million for year one of the five-year Regional Delivery Program. The seven projects funded aim to achieve outcomes including improving the natural resource base for production, making natural ecosystems more resilient, and improving the skills, knowledge and involvement of the community and Traditional Owners in natural resource planning and implementation. Approximately 35 per cent of the funding to these projects is going directly to landholders or community groups to deliver project outcomes.

The importance of partnerships in responding to regional challenges was evident with the speed at which the \$2 million Fruit Industry Employment Program was rolled out by the Goulburn Broken CMA in August 2013. Funded by the Victorian Government, and delivered by the Goulburn Broken CMA in partnership with the Shire of Moira, the Greater Shepparton City Council, Parks Victoria, Goulburn-Murray Water and DEPI, the program employs 30 workers who are either orchardists or orchard workers suddenly impacted by reduced fruit quotas in activities such as weed control, fencing and nest box construction. The program also includes extensive training, helping those affected transition to potentially different career paths.

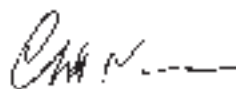
Successful partnerships also enabled the workers employed through the Fruit Industry Employment Program to be quickly diverted to fire recovery in the Catchment's north in early 2014. At the same time in the south, volunteer teams were mobilised from the South West Goulburn Landcare Network, supported by a Goulburn Broken CMA-sponsored facilitator through the Upper Goulburn Landcare Network. The rapid removal and replacement of fences was greatly appreciated by those fire-affected landholders at either end of the Catchment.

In 2013-14 State Government investment of \$1.4 million also supported a significant onground works program focused on building the resilience of high priority rivers and wetlands within the Catchment in partnership with local communities. For example, working closely with Yea landholders, large-scale riparian weed control was undertaken along the Yea River, with activities including 29.5 hectares of weed control and 9.6 hectares of native indigenous vegetation being planted. Large instream woody habitat was placed in priority areas within the Goulburn River (184 large snags), Broken Creek (103 large snags) and Delatite River (31 snags) which will support native fish populations.

### Acknowledgement

The support of the Board and the tremendous commitment by all our agency and community partners, along with our dedicated staff, continues to provide the solid foundations for Goulburn Broken CMA's ongoing success in helping the community increase the Catchment's environmental and social resilience. I want to particularly acknowledge the dedicated leadership and support provided by our new Chair, Murray Chapman.

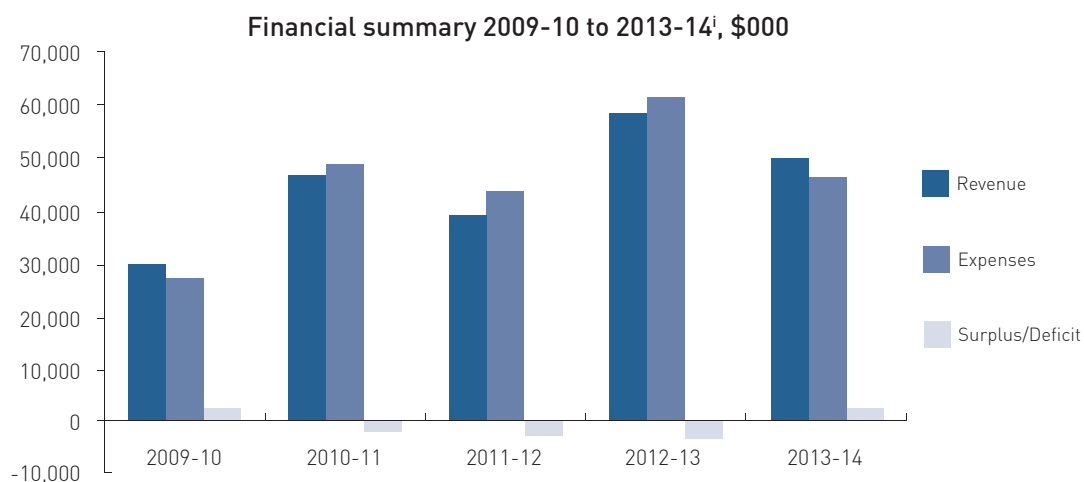
I also wish to pay special acknowledgement for the contributions of those staff who left the Goulburn Broken CMA during the year: Stephen Collins, Max Colliver, Mark Cotter, Jason Head and Jasmine Dick.



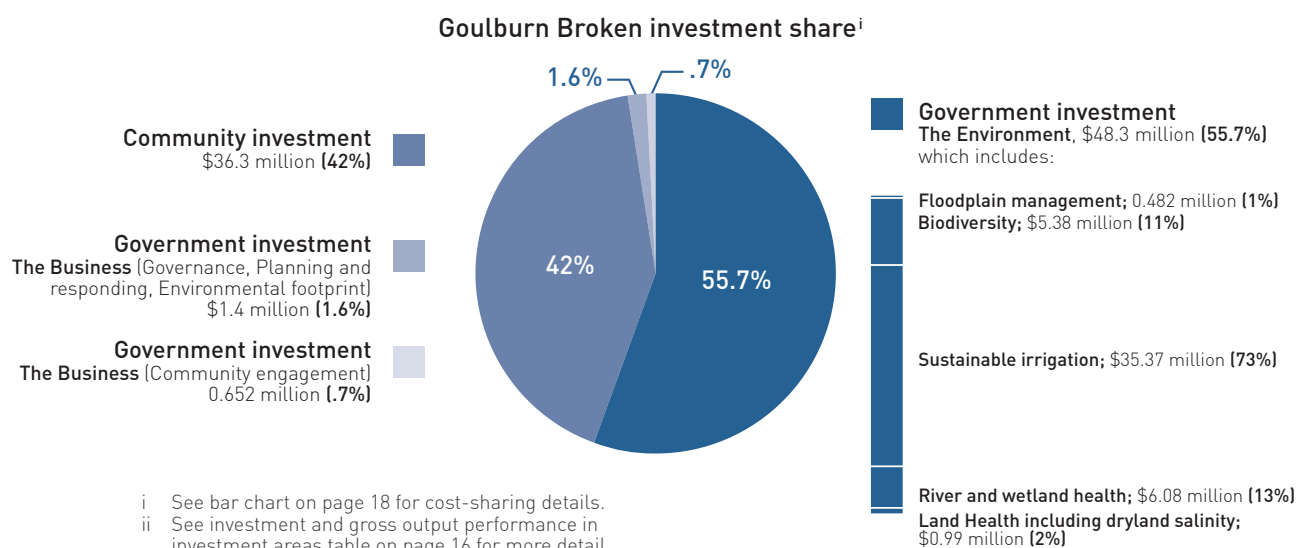
Chris Norman  
Chief Executive Officer

## Operational highlights

	Details Page
<b>Water-use efficiency, water savings, floods and environmental water</b>	
All 233 projects through Round 2 of the Farm Water Program have been completed, saving a total of 33 gigalitres. Six of the 132 Round 3 projects have been completed, with all projects due to be completed by March 2016.	35
FloodSafe Guides are completed for Seymour, Murchison, Mooroopna/Shepparton, Violet Town, Nathalia and Numurkah carried out in partnership with Victoria State Emergency Services, local, state and commonwealth government and local communities.	51
A total of 714,378 megalitres of environmental water was delivered in 2013-14 to support fish, macroinvertebrates and vegetation in the lower Goulburn River and lower Broken Creek and to Barmah-Millewa Forest to ensure the success of waterbird and fish breeding.	42
<b>Works and incentives</b>	
486 incentives were provided to landholders for fencing, revegetation, whole farm plans, improving irrigation and installing reuse systems.	35
1,218 hectares of remnant vegetation were protected.	55
79 whole farm plans were completed across the catchment; 67.2 per cent of the farmed land in the Shepparton Irrigation Region is now covered by whole farm plans.	35
The Creating Biodiverse Carbon Landscapes project achieved 845.43 hectares of revegetation and 606.16 hectares of remnant protection. Community groups played a pivotal role in the delivery of over \$1 million dollars of incentives to landholders.	57
Community-based natural resource management groups leveraged more that \$1.1 million of funding for onground works in the Catchment.	18
<b>Funding</b>	



<sup>i</sup> See Financial results summary on page 99 for details.



<sup>i</sup> See bar chart on page 18 for cost-sharing details.  
<sup>ii</sup> See investment and gross output performance in investment areas table on page 16 for more detail.



## 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 responsible Ministers for the period of 1 July 2013 to 30 June 2014 were:

- the Hon Ryan Smith MP, Minister for Environment and Climate Change; and
- the Hon Peter Walsh MLA, Minister for Water.

(See page 126 for names of all persons who were responsible during 2013-14.)

The Goulburn Broken CMA develops and coordinates the Goulburn Broken Regional Catchment Strategy implementation 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 described under the Water Act 1989 and 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. Urban water and wastewater services are provided by another partner agency, Goulburn Valley Water.

See the 'Governance' section (page 80) for details.

#### Funding and staff

Goulburn Broken CMA's income for 2013-14 was \$49.5 million, derived from the Victorian and Australian Governments, regional sources and other government entities. As at 30 June 2014, 54.5 (full-time-equivalent) staff were directly employed. See the 'Human resources' section (page 71) 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.

#### Our purpose

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

#### Our values and behaviours

**Environmental sustainability:** we will passionately contribute to improving the environmental health of our catchment.

**Safety:** we vigorously protect and look out for the safety and wellbeing of ourselves, our colleagues and our workers.

**Partnerships:** we focus on teamwork and collaboration across our organisation to develop strategic alliances with partners and the regional community.

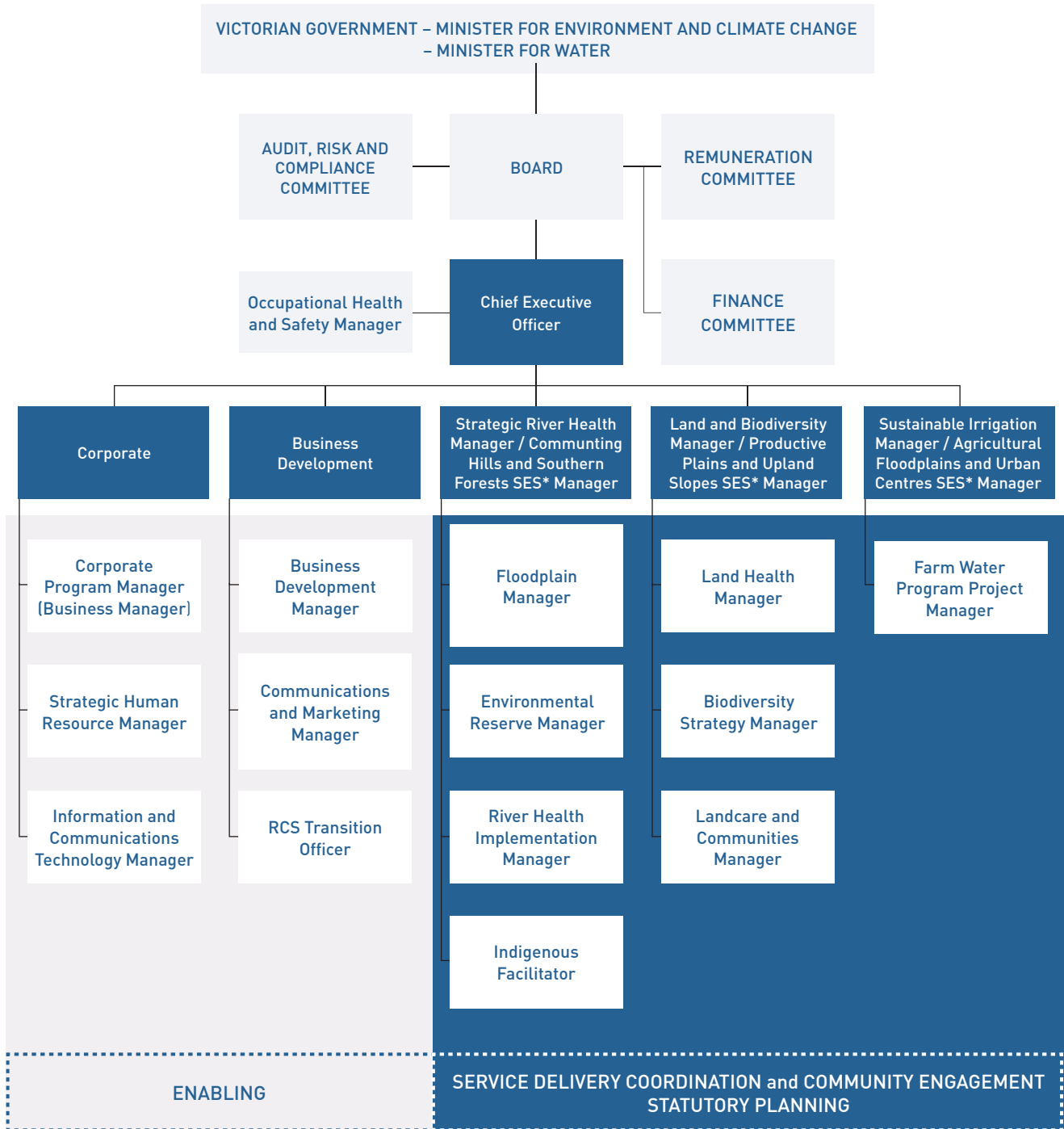
**Leadership:** we have the courage to lead change and accept the responsibility to inspire and deliver positive change.

**Respect:** we embrace diversity and treat everyone with fairness, respect, openness and honesty.

**Achievement, excellence and accountability:** we do what we say we will do, we do it well and we take responsibility and accountability for our actions.

**Continuous learning, innovation and improvement:** we are an evidence and science-based organisation and we test and challenge the status quo. We learn from our successes and failures and we are continually adapting using internal and external feedback from stakeholders and the environment. We are an agile, flexible and responsive organisation.

## Goulburn Broken CMA business structure



\* SES - social-ecological systems

## Goulburn Broken Catchment

### People

The Goulburn Broken Catchment has a rich and diverse community. The Catchment has an estimated population of 204,000 people, which includes 6,000 Indigenous Australians, many who identify as Traditional Owners of this area.

The population of the Catchment is growing by between 0.5 and 5 per cent across its local government areas, with Mitchell Shire being amongst the highest predicted population growth areas in Victoria from 2011-2021 at 5 per cent. Approximately 10 per cent of the population was born overseas. 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.

Shepparton is home to a large culturally and linguistically diverse community, including newly arrived refugees from the Congo, Sudan, Afghanistan and Iraq. Other significant settlements include Seymour and Benalla.

### Landscape

The Goulburn Broken Catchment boasts a wide diversity of landscapes, including snow-covered alps, 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, the Goulburn and Broken, cover approximately 2.4 million hectares or 10.5 per cent of Victoria.

The Catchment yields 3,559 gigalitres, or 10.5 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 Goulburn Broken Catchment covers 2.4 million hectares, extending north from near the outskirts of Melbourne to the River Murray on the border with New South Wales. The community is based around rural service towns, tourism, farming (including smaller enterprises) and lifestyle properties that are often in commuting distance to Melbourne-based jobs and services. Most of the land is privately owned, approximately 1 million hectares of dryland agriculture and 270,000 hectares of 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, viticulture, livestock production (beef, sheep, goats, pigs and poultry), cropping, timber and aquaculture. Smaller, specialist enterprises include thoroughbred and standardbred horse breeding, nurseries, mushrooms, turf and cut flowers.

Other industry includes food processing, tourism and recreation.

Although not formally part of the Goulburn Broken CMA region, the River Murray between Yarrawonga and Echuca, which borders the Goulburn Broken CMA, is influenced by activities within the Goulburn Broken 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 federal 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 burnt. This has changed patterns of settlement in some areas.
- 2010, 2011, 2012 and 2013 floods: while improving the condition of floodplain systems, these floods may change patterns of settlement in some affected areas.
- 2013 bushfires: covering approximately 9,700 hectares in the Wunghnu-Numurkah region and 23,600 hectares in the Kimore area (of which approximately 3,400 hectares was in the Goulburn Broken Catchment).

### Economy

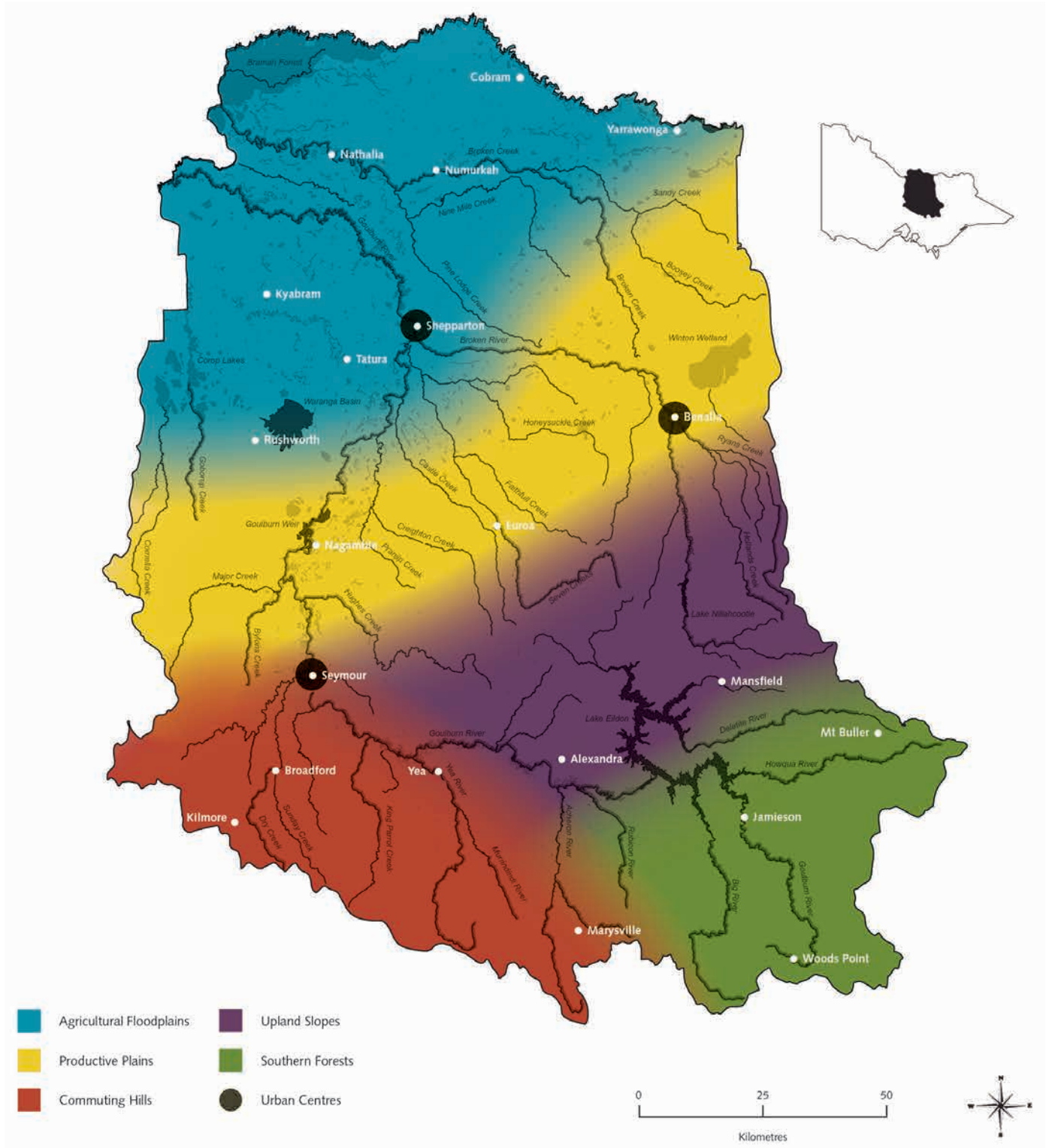
Agriculture is a significant contributor to the Catchment economy. The gross value of agricultural production was \$1.77 billion in 2011, almost the same as the pre-drought level in 2001. Irrigation continues to drive the agricultural sector, contributing two-thirds of this value, although its share declined from 67 per cent in 2005-06 to 62 per cent in 2011. The area of agricultural holdings remained static at 1.3 million hectares although the number of establishments decreased from 5,800 in 2005-06 to 5,000 in 2010-11.

The results of the Australian Bureau of Statistics natural resources management survey for 2007-08 and 2009-10 shows farm businesses in the Goulburn Broken Catchment outperformed the State.

The Goulburn Broken Catchment provides unique opportunities to value-add agricultural produce and provide competitive output. Environmental and sustainability values are being achieved through new opportunities to value-add waste products, converting them to be an input for another industry.

There is increasing opportunity in the dryland area of the Catchment for high value horticulture development, such as fruit, winegrapes, olives, nuts or any other enterprise. The irrigation area already has the water irrigation infrastructure and many of the supporting services to enable new development.

## Goulburn Broken Catchment<sup>i,ii</sup>



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 5 and 6 (pages 139 and 140).



## 1. Agricultural Floodplains

### Northern floodplains with Murray River along boundary with NSW

- Landscape highly modified or agriculture with remaining vegetation fragmented and found mainly on waterways, wetlands and roadsides
- Irrigation supports dairy, horticulture and cropping and a large food processing sector with major investment in on and off-farm irrigation infrastructure recently
- Barmah National Park highly valued (Ramsar listed) internationally important breeding site for many bird species
- Long history of community leadership in managing land and water problems

Threats: Further loss and decline of vegetation, salinity, poor natural drainage, future farming options, and floods continue to threaten production and channel form or stability

## 3. Upland Slopes

### Includes the slopes and valleys towards the south of the Catchment

- Grazing and other agricultural enterprises occur in cleared valleys surrounded by partially forested hills and vegetation along waterways
- Lake Eildon provides water for agricultural production, recreation, tourism, and river health all the way down the Catchment and beyond the boundary
- Generational farmers live alongside increasing numbers of lifestyle properties and absentee landholders

Threats: Erosion, weeds and fires are among the threats to the amount and quality of highly valued water, used for many purposes

## 5. Southern Forests

### South-east mountains, waterways and snow covered alps

- Unique alpine vegetation supports endangered mountain Pygmy Possum
- Most of the area is public land managed for conservation, but also for recreation and timber production
- Waterways are in good condition with recreation and tourism highly valued
- People live in small and seasonal communities and travel to and from this area
- The interface between private and public land is important for management

Threats: Waterway health threatened by erosion along with threats to vegetation including fire, weeds and pest animals

## 2. Productive Plains

### Foothills and floodplains towards the north of the Catchment

- Habitat provided by vegetation along waterways, roadsides, ranges and spring soak wetlands
- Dryland farming includes cattle, sheep, cropping and viticulture and many farms remain in same families for generations with average farming populations ageing
- Rivers and creeks in moderate condition and wetlands in moderate to good condition.
- Landcare and conservation management networks establish sustainable farming practices and protect threatened species

Threats: More habitat loss, ageing farming populations and declining social connection are threats to biodiversity and farming futures

## 4. Commuting Hills

### Includes the mountainous southern and south western urban fringe

- Public and private forests support many plant and animals including the Golden Sun Moth
- Land use also supports a range of agricultural industries and lifestyle communities
- Waterways remain largely healthy because of the extent of remaining vegetation
- People drawn to area for natural beauty and lifestyle and commute to Melbourne for work

Threats: Fire remains a major threat to safety and properties, along with native vegetation loss through population pressures and development

## 6. Urban Centres

### Major urban centres of Shepparton, Seymour and Benalla

- Biodiversity is poor but urban people value the rivers and remaining vegetation for recreation
- Provide employment, housing, schools and services surrounded by farming and lifestyle properties on Goulburn and Broken River floodplains
- Water is pumped from the rivers for domestic use and runs off into rivers following storms
- Large diverse populations

Threats: Pollution, land development and aquatic weeds threaten river health, including water quality and floods are an on-going threat to properties and safety

## Key events 2013-14

# 2013

### July

Caring for Our Country (CFOC) funded Dookie Biolinks Project is completed. Achievements include: 60 ha of remnant protection, 92 ha of revegetation and 40 ha of wetland protection. This project was successfully delivered in partnership with the Goulburn Broken CMA and RAD.COM Indigenous works crew.

Successful completion of the three-year CFOC 'Targeting landscape-scale biodiversity outcomes across the Goulburn Broken Catchment' project. Significant targets achieved include: Threatened Grassy Woodlands 3,229 ha protected and enhanced, 463 ha of covenant on woodland sites, including 37 long term management agreements (10 years). Regent honeyeater project alone engaged 7,995 volunteers and 59 schools over the three-year project journey.

### August

The Victorian and Australian Governments announce the \$100 million Victorian Farm Modernisation Project (VFMP) to be delivered via the Farm Water Program in three tranches between 2013 and 2019.

The Goulburn Broken Seedbank is officially under new management: Goulburn Valley Community Energy (GVCE). A MOU is signed between GVCE and Goulburn Broken CMA.

### September

Goulburn Broken CMA receives Australian Government approval for seven projects 2013-2018 as part of its regional allocation funding. Projects include: Building Traditional Owner Capacity and Participation \$337,766, Building NRM Community, Skills, Knowledge and Engagement \$175,030, Building Resilience of Barmah Forest Ramsar Site \$553,223, Improving the resilience of woodland and wetland ecosystems in the Goulburn Broken \$1,178,315, Building the resilience of EPBC Threatened Species in the Goulburn Broken Catchment \$466,666, Community-directed Action Learning to Enhance Soil Ecosystem Services Beyond Soilcare \$990,305 and Regional Landcare Facilitator Goulburn Broken \$150,000.

Registrations of interest open for irrigators interested in carrying out on-farm improvements funded through the \$30 million first tranche of the Victorian Farm Modernisation Project.

Photography competitions, camps, courses, walks, nest-box building, bird surveys and information sessions on topics as diverse as bush tucker, traditional dance, plant propagation, bats, weed control and geology are among almost 50 events held across the Goulburn Broken and North-East to celebrate Biodiversity Spring 2013.

Goulburn Broken CMA received \$1.95 million from the Victorian Government to deliver a Fruit Industry Employment Program (FIEP) for orchardists or orchard workers affected by SPC-Ardmona's announcement that it will cut its fruit intake. Four FIEP crews start work on environmental projects with Greater Shepparton and Moira councils, Parks Victoria and the Goulburn Broken CMA.

### October

Respected botanist and arboriculturist Dr Greg Moore highlighted the hidden economic, social and environmental benefits of trees in urban spaces at a free Urban Centres Forum held at Mooroopna. More than 60 people attended the event.

Round 1 of the Commonwealth Government's On Farm Irrigation Efficiency Program (OFIEP) delivered by the Farm Water program is completed. Water and labour savings, improved property values, jobs, and renewed confidence in the future of agriculture in Northern Victoria are benefits highlighted by irrigators involved in the 76 projects funded in this round.

### November

Australian Government-funded Box Ironbark and Floodplain Ecology Courses are held in the Goulburn Broken Catchment with 50 community members attending (25 at each), including 13 indigenous people from Taungurung and Yorta Yorta Nations.

Conservation Management Network (CMN) photo competition is held across the Catchment, with 160 photos submitted.

Two freshes (increased flows) of up to 8,500 ML/day along the Goulburn River, aimed at encouraging Golden perch (Yellowbelly) to breed, start. The flows are planned by the Goulburn Broken CMA, managed by Goulburn-Murray Water in line with the Victorian Environmental Water Holder's Seasonal Watering Plan 2013-14, with the water provided by the Commonwealth Environmental Water Holder and The Living Murray Program.

One hundred farmers interested in improving soil management and boosting productivity attend a Farming for Soil Biology workshop in Benalla with well-respected soil expert Nicole Masters. The next day the group visit Graceburn Farm, Glenburn, a beef cattle and paddock-egg enterprise run by Tom Abbottsmith Youl and Sally Abbottsmith.

Goulburn Broken CMA, through its Hooray for Yea program, carries out willow control to help the Yea Wetlands Committee implement its Yea Wetlands Vegetation Management Plan. The willows are replaced with local indigenous plants to help stabilise the banks and increase habitat for native wildlife

\$245,000 is secured through the latest round of the Victorian Government's Victorian Landcare Grants Program to fund 12 projects across the Catchment. The projects include support for community efforts to tackle weeds and pests such as blackberry and rabbits, restore habitat for platypus and run environmental education programs in schools

Forty-four people helped build 60 nest boxes to provide habitat for endangered box ironbark forest wildlife at the Whroo Goldfields Conservation Management Network's 'Marsupial Mansions 2' field day, held at Heathcote Community House.

### December

Monitoring finds Golden Perch (Yellowbelly) breeding has been triggered in the Goulburn River by the environmental water flows (pulses or freshes) sent down the river in mid-November.

A call goes out to landholders interested in helping boost dwindling Silver Banksia populations across the Agricultural Floodplains social-ecological system in the Goulburn Broken Catchment's north. Established in partnership with the CSIRO, the project aims to identify the genetic diversity of remaining Silver Banksia and help build healthy and resilient populations. The project is part of the broader Sand Ridge Woodlands Project funded by the Australian Government.

More than 200 entries received for the statewide #lovewaterways Instagram competition. The competition is part of the 'Love Our Waterways' campaign, which aims to raise awareness about our waterways and encourage the community to get involved in activities such as Waterwatch and development of the Waterway Strategy.

Community groups with innovative ideas on ways to protect and improve the Goulburn Broken Catchment's natural resources are invited to apply for funding through the Goulburn Broken CMA annual Expression of Interest (EOI) process. For 15 years funding has been secured for community groups to carry out a range of activities that improve the resilience of the Catchment's water, land, biodiversity and people.

A planning scheme amendment is gazetted to implement a package of reforms to Victoria's native vegetation permitted - clearing regulations.

## Key events 2013-14

### January

Environmental flows to transfer irrigation water from the Goulburn system to the Murray River begin. The flows vary from 1,000 ML/day to 3,000 ML/day (river height 3.37m at Shepparton).

The Victorian Government releases the Water Bill Exposure Draft to give Victorians the opportunity to provide feedback on proposed changes to the state's water laws. The Water Bill Exposure Draft proposes to bring the Water Act 1989 and Water Industry Act 1994 into a single, streamlined Water Act that reflects contemporary practice in water management and government policy. A public forum to provide an opportunity for people to learn more about the Exposure Draft and ask questions about the proposed legislation was held in Shepparton and other regional centres.

Evidence that efforts to return to more natural wetting and drying regimes in wetlands across the Goulburn Broken Catchment are paying off, with migratory birds last seen in the area six years ago spotted at Reedy Swamp near Shepparton. Sharp-tailed and marsh sandpipers, covered under international treaties to protect migratory birds, were last recorded at Reedy Swamp during 2008 when an environmental flow was delivered to the wetland.

### February

Landholders are invited to apply for grants to protect seasonal herbaceous wetlands. These unique ecological systems are generally found on clay soils and only fill up and hold water after rain. They are found across the Agriculture Floodplains social-ecological system in the Catchment's north and in valleys in the Strathbogies.

Broken Boosey CMN application to state-funded 'Communities for Nature' for NRM work on Turquoise Parrot 'Practical parrot action' is successful and received \$295,620 over two years. Project will focus on the Warby Ranges and Chesney Hills region.

The Goulburn Broken CMA produces an OH&S Management Plan for our Community NRM groups and Landcare Networks. This plan is aimed at supporting our community groups in the OH&S space and includes several templates and information to make it easier for our volunteers and support staff to comply with OH&S law in their work.

Fires sweep across the state in the wake of extreme weather conditions. Crews employed through the Goulburn Broken CMA's Fruit Industry Employment Program quickly swing into action to help Wunghnu and Numurkah landholders affected by the fires. Through State and Commonwealth natural disaster relief and recovery arrangements, the CMA funds a fire recovery officer to help the recovery effort around Kilmore.

### March

Work to modify a gauging station at Emu Bridge on Holland's Creek near Tatong helps fish passage along the waterway is completed. Tatong Angling Club's support in the application for funding for the barrier removal projects is critical in securing funding from Victoria's Recreational Fishing initiative for the work.

The public comment period on draft Goulburn Broken Waterway Strategy 2014-22 closes. The strategy has been compiled with input from the community via a reference group and partner agencies, including local government, Department of Environment and Primary Industries and Goulburn-Murray Water. It outlines how the Goulburn Broken CMA will continue to work with landholders, communities and other organisations to maintain and protect the region's rivers and wetlands for the next eight years.

An autumn fresh (increased flow) along the Goulburn River, peaking at up to 4,500 ML/day, is delivered to water vegetation on the lower river bank and maintain habitat for instream plants, bugs and fish.

The North Central, North East and Goulburn Broken CMAs secure \$4.5 million of the State Victorian Environmental Partnerships Program funding to undertake a 'Northern Eco-Connections' project. This biolinks project will deliver onground works across the three catchments through a tender process.

More than 90 people take part in the Destination Chesney Vale field day, organised by the Broken Boosey CMN. The event includes a talk by Chris Tzaros from Birds, Bush and Beyond and a tour of the Winton Wetlands.

### April

Thirty Macquarie perch are implanted with acoustic transmitters during a survey of the King Parrot Creek conducted by researchers from the Arthur Rylah Institute as part of the Goulburn Broken CMA's Threatened Species Program. The transmitters are used to track fish movements along the Creek and the mid-Goulburn to understand how mobile the Macquarie perch population is and identify potential barriers to fish movement.

A drone - a remote controlled aerial camera - provides Goulburn Broken CMA, Moira Shire Council and Goulburn-Murray Water with baseline information to measure the recovery of Kinnairds Wetland and Black Swamp after the February fires. The majority of Kinnairds Wetland and Black Swamp were burnt during the fires, as well as walkways, bird hides and fences.

179 ML of environmental water is delivered to Kinnairds Wetland near Numurkah and another 50 ML to Black Swamp near Wunghnu to mirror natural wetting and drying patterns as well as help fauna and flora re-establish.

The 2013 shallow watertable map, completed each year for the Goulburn Broken CMA by Goulburn-Murray Water, shows the area of land where the watertable was within three metres of the surface has increased from 9,000 ha to 151,000 ha between 2009 and 2013.

Goulburn Broken CMA Land Health Manager Rhiannon Apted is awarded the 2014 Ken Sampson Memorial Fairley Leadership Scholarship.

### May

The CEO of Goulburn Broken CMA presents on the Goulburn Broken CMA's approach to embedding resilience thinking in managing natural resources at the 2014 International Resilience Conference in Montpellier, France.

Official launch by Bill Sykes (MLA Benalla) of two-year \$295,620 Communities for Nature project 'Practical Parrot Action' (Turquoise parrot) project in Glenrowan. Ninety-five community members attend the event.

120 ML of environmental water is delivered to Moodies Swamp, a 180 ha wetland south of Katamatite, to promote breeding habitat for waterbirds, particularly brolga, and protect nationally threatened plants such as rigid water milfoil.

An advisory group, made up of agency staff and community members and scientists, meets for initial discussions as part of a flow study of the Goulburn River downstream of Lake Eildon to Nagambie that will help identify opportunities for flows to benefit the river's environmental, social and economic values.

A fish survey of the Goulburn River between Yea and Mangalore by scientists from the Arthur Rylah Institute on behalf of the Goulburn Broken CMA confirms the presence of threatened Macquarie perch.

### June

The 2014 Goulburn Broken Natural Resource Management Awards are held at Swanpool. The annual awards recognise the outstanding efforts of the community in volunteering their time to protect and enhance the Catchment's waterways, land and biodiversity. The winners are: Hubert Miller Award - Jacqui Campbell; Community Education Award - Buxton Primary School; Community NRM Group Award - Strath Creek Landcare Group; Community NRM Network Award - Broken Boosey Conservation Management Network; and Community NRM Sustainable Farming Award - Tom Abbottsmith-Youl - Tom's Paddock.

The Yorta Yorta Whole of Country Action Plan 2012-17 and a Memorandum of Understanding between the Goulburn Broken CMA and YYNAC are officially launched at Moorooona.

## Long-term scorecard

Ratings in the following table are explained in investment area reports, as referenced in the right hand column.

### Long-term strategy implementation progress and Catchment condition

Investment area	Long-term strategy implementation progress <sup>i</sup>		Catchment condition <sup>i</sup>			Details page
	Strategy life <sup>ii</sup>	Progress	1990 <sup>iii</sup>	2014	Recent Trend	
<b>The Environment</b>						
1 Sustainable irrigation						
1a Shepparton Irrigation Region salinity	1990-2020	On target	Poor	Satisfactory	↓	35
2 River and wetland health and floodplain management						
2a Environmental flows	2004-present	On target	Poor	Good	↑	42
2b Riparian and instream habitat and channel form	2005-2015	Below target	Poor	Satisfactory	↑	42
2c Water quality (nutrients) in rivers and streams	1996-2016	Exceeding target	Very Poor	Satisfactory	↑	42
2d Floodplain management	2002-2012	Exceeding target	Very Poor	Poor	↑	51
3 Land and biodiversity						
3a Biodiversity	2000-2030 2010-2015	On target	Poor	Poor <sup>iv</sup>	●	57
3b Land health including dryland salinity	1990-2050	Below target	Poor	Satisfactory	●	64
3c Invasive plants and animals	2010-2015	Below target	Poor	Poor	●	67
<b>The Business (Corporate)</b>						
A Governance	Rolling 5 year Corporate Plan	On target	n.a.	Satisfactory	●	80
B Community engagement	2005-present	On target	Poor	Satisfactory	↑	18
C Planning and responding	Rolling 5 year Corporate Plan	On target	Poor	Satisfactory	↑	22
D Human resources	various	On target	Satisfactory	Good	●	70
E Environmental footprint <sup>v</sup>	2012-14	Below target	Very Poor	Poor	●	77

<sup>i</sup> 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 130 describes the ratings methodology in more detail.

<sup>ii</sup> 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 ten to fifty years).

<sup>iii</sup> Ratings for 1990 have been determined using our understanding in 2014 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.

<sup>iv</sup> 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).

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

### Notes about the long-term scorecard

Significant differences between investment areas in rating long-term strategy implementation progress and Catchment condition change (see table above) are often simply because of varying methods used to assess Catchment condition and set long-term targets. This reflects the infancy of natural resource management and the variation between its disciplines.

Appendix 1, 'Understanding progress and ratings' (page 130), 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.



## Outputs achieved 2004-05 to 2013-14 and forecast 2014-15

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 35) 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.

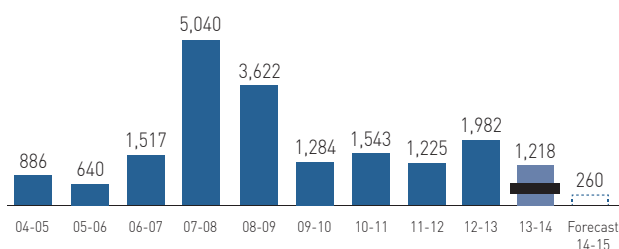
Whole farm plans ensure that works at the farm scale are consistent with the needs of the Catchment, as described in whole-of-Catchment strategies and plans. In the Shepparton Irrigation Region, 67 per cent (301,041 hectares) of land under a water-use licence or potentially irrigated is covered by whole farm plans, which are critical to capitalise on investment in modernising irrigation delivery infrastructure through the Goulburn-Murray Water Connections Project (see page 35 and map in Appendix 5, page 139).

Outputs shown in the following graphs are derived from the more detailed set of outputs in Appendix 4 on page 137. Outputs, including limitations in measuring them, are described in Appendix 1 on page 130.

### Note on forecast targets:

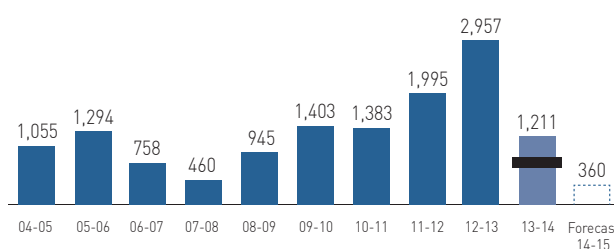
Forecast output targets are generally lower than what was achieved previously because they are based on indicative rather than actual funding received. Forecasts are based on figures cited in the Corporate Plan for the forthcoming financial year and do not take into account new funding opportunities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

Remnant vegetation fenced, ha



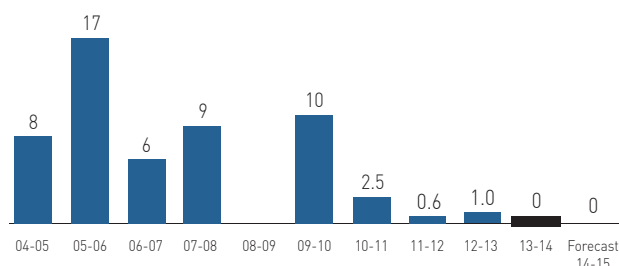
Increased achievements in 2007-08 and 2008-09 were largely due to Drought Employment Program funding.

Indigenous revegetation (planted), ha



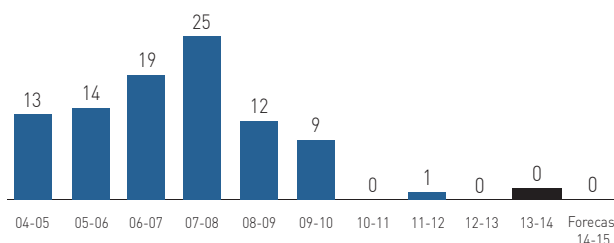
Despite decreased funding, there is still significant community interest in revegetation. Direct seeding remains the dominant method of revegetating.

Irrigation drains built, km



While many actions of the 1990 salinity plan continue to be implemented (page 35), reduced funding for some core actions has resulted in decreased achievement.

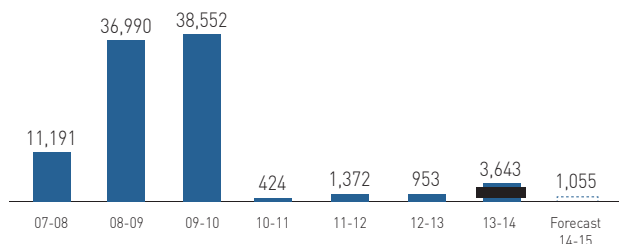
Groundwater pumps installed, numbers



Legend

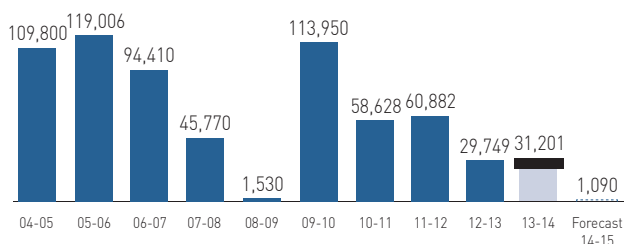
■ Target for 2013-14

Weeds treated, ha



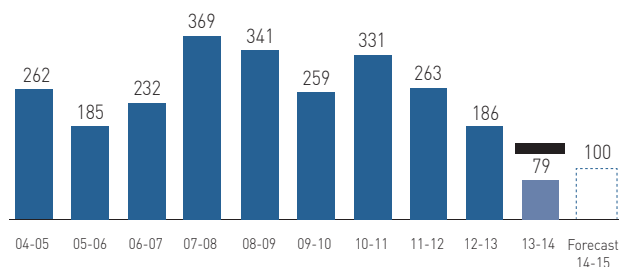
DEPI's Biosecurity Victoria's Pest Plan and Animal Program was removed from the Goulburn Broken CMA's investment process from 2009-10.

Rabbits and foxes treated, ha



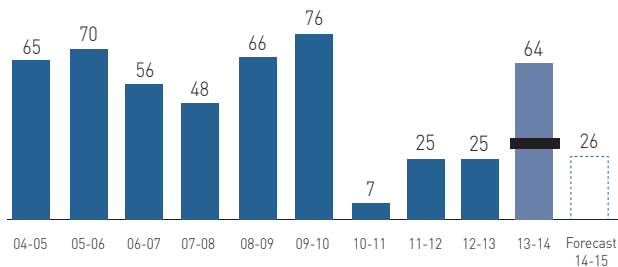
Whroo Goldfields and Broken Boosey Conservation Management Networks (CMNs) have been major contributors to fox control achievements since 2009-10 (page 67).

Whole farm plans prepared, numbers



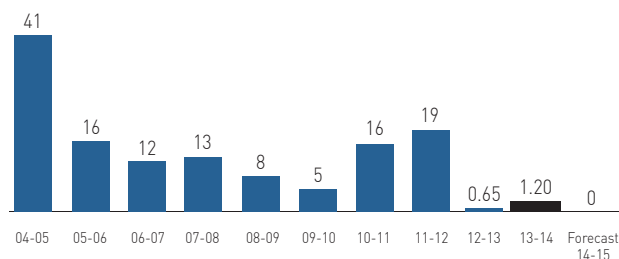
Reduced funding for whole farm plans (WFP) prompted an expression of interest process. This 'stop-start' approach to manage an incentive program has prevented targets from being met in 2013-14.

Reuse systems installed, numbers



Investment in reuse systems has been through the Farm Water Program since 2010-11 (page 35).

River or stream bed and bank protection actions, km



Reduced funding available for these actions.

Legend

■ Target for 2013-14

## Annual scorecards

Most output targets listed in the Corporate Plan were achieved in 2013-14. There were few works targets that were not met (see Appendix 4, Outputs – detailed list of achievements, on page 137).

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 130), describes the analytical framework, including outputs, targets, investment areas and integration, and ratings.

### Investment and gross output performances in investment areas

Investment area <sup>i</sup>	Investment <sup>ii</sup> (including partnership funds)			2013-14 performance <sup>iii</sup> (outputs)	Details page
	2011-12 \$000	2012-13 \$000	2013-14 \$000		
<b>The Environment</b>					
1 Sustainable irrigation					
1a Shepparton Irrigation Region salinity	24,928	45,499	35,367	On target	35
2 River and wetland health and floodplain management					
2a Environmental flows	<i>Combined investment of 2a, 2b and 2c: 5,430</i>	<i>Combined investment of 2a, 2b and 2c: 4,606</i>	<i>Combined investment of 2a, 2b and 2c: 6,083</i>	On target	42
2b Riparian and instream habitat and channel form				On target	42
2c Water quality (nutrients) in rivers and streams				On target	42
2d Floodplain management	496	362	482	On target	51
3 Land and biodiversity					
3a Biodiversity	5,244	4,933	5,381	On target	57
3b Land health including dryland salinity	1,293	1,577	990	On target	64
3c Invasive plants and animals	0	0	0	On target	67
<b>The Business (Corporate)</b>					
A Governance	1,516	1,625	1,407	On target	80
B Community engagement	710	729	652	On target	18
C Planning and responding	Part of A				22
D Human resources <sup>iv</sup>	5,909	5,436	5,645	On target	70
E Environmental footprint <sup>iv</sup>	20	23	25	Below Target	77

i Investment areas and integration between them are described in Appendix 1 on page 130.

ii Investment figures include funding to partners, except for the Invasive plants and animals investment area.

iii 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 4 on page 137.

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

## Aggregate output performance across all investment areas in 2013-14

Output <sup>i</sup>	Achieved	Target <sup>ii</sup>	Performance	
			% achieved	Rating
Remnant vegetation fenced, hectares	1,218	561	217	Exceeded target
Long-term conservation agreements, hectares <sup>iii</sup>	0	75	0	Below target
Indigenous revegetation (planted), hectares	1,211	778	156	Exceeded target
Irrigation drains built, kilometres	0	0	0	-
Reuse systems installed, numbers	64	32	200	Exceeded target
Landform/lasergrading, hectares	6,671	4,262	157	Exceeded target
Groundwater pumps installed, numbers	0	0	0	-
Weeds treated, hectares	3,643	1,799	202	Exceeded target
Rabbits and foxes treated, hectares	31,201	27,434	114	Exceeded target
River or stream bed and bank protection actions, kilometres	1.20	0.95	126	Exceeded target
Fishway structures installed and barriers modified, numbers	2	2	100	On target
Aquatic habitat works, numbers	15	15	100	On target
Threatened species projects, numbers	0	0	0	-
Whole farm plans prepared, numbers	79	146	54	Below target

i Outputs shown in this table are derived from the more detailed set in Appendix 4 on page 137. Outputs are described in Appendix 1 on page 130 under 'Annual performance', including the full list of footnotes. 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 137. This target is for the first year of a five-year project target of 375 hectares and the area will only be reported once covenants are on title, which takes more than 12 months.

### Descriptions of output performance

Case studies (on pages 21, 30, 41, 50, 54, 63, 69 and 76) and investment area details in the environment section pages 35-69 describe actions undertaken in 2013-14 and illustrate integration between programs, government agencies, regional authorities, community organisations and individuals.



# Community engagement

Compiled by Chris Norman, Fiona Lloyd, Katie Warner and Helen Murdoch

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

Decision focus <sup>i</sup>	Examples of evidence used to inform decisions	1990 <sup>ii</sup>	Certainty of rating	2014	Certainty of rating	Trend
2013-14 performance	Outputs (against targets set as a result of funds received) Corporate Plan KPIs (see page 95)	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	● <sup>iii</sup>
Catchment condition <sup>iv</sup>	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	↑

<sup>i</sup> See Appendix 1 for notes on the analytical framework (page 130), including an explanation of the decision focus and ratings.

<sup>ii</sup> Ratings for 1990 have been determined using our understanding in 2014 of what the situation was like in 1990.

<sup>iii</sup> Assumed to parallel government funding trend.

<sup>iv</sup> 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.

### Government investment, \$000

2010-11	2011-12	2012-13	2013-14	2014-15 <sup>i</sup>
1,700	710	729	652	537

<sup>i</sup> Forecast based on funding advice at July 2014.

### Major strategic references

- Goulburn Broken Community Engagement Strategy 2014-2015
- Goulburn Broken Communications and Marketing Strategy 2013-2014
- Goulburn Broken Community NRM Action Plan 2013-2018
- *Aboriginal Heritage Act 2006*
- COAG Closing the Gap initiative 2008
- Yorta Yorta Cooperative Management Agreement 2004
- Yorta Yorta Traditional Land Management Agreement 2010
- Various memoranda of understanding

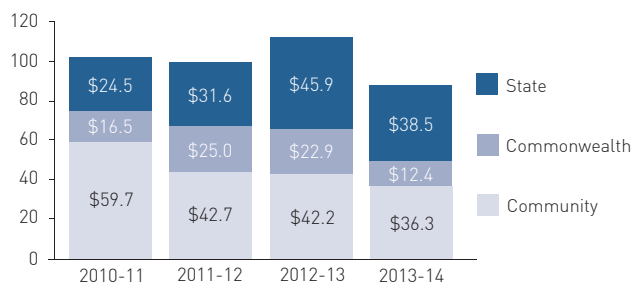
## Background

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

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

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 3 on page 134 summarises the role of catchment partners in implementing the Goulburn Broken Regional Catchment Strategy.

### Major contributions to natural resource management<sup>i</sup>, \$million



<sup>i</sup> Farm Water Program contributions are reflected as unearned revenue in the Financial Statements, but are included in annual contributions above as: 2010-11 – \$5.3 million; 2011-12 – \$17.5 million (\$10.1 million Commonwealth and \$7.4 million State); 2012-13 – \$14.2 million (\$3.1 million Commonwealth and \$11.1 million State) and 2013-14 – \$3.7 million (\$0.5 million Commonwealth and \$3.2 million State).

### Supporting community natural resource management

The Goulburn Broken CMA relies on landholders, school children, Landcare groups, Conservation Management Networks and individuals to deliver programs across the Catchment that improve the health of our rivers and creeks, protect and improve habitat for native animals and plants, recognise the region's cultural heritage and bring about practice change. Efforts to boost the Catchment's resilience lead to increasingly productive landscapes that will support the long-term viability of our communities in the face of constant change. To support the effort of the community undertake activities, a broad range of grants (funded through a combination of State and Commonwealth programs, including the Victorian Landcare Program and Australian Government Regional Delivery) were provided to community organisations (see table on page 19). Activities funded included revegetation and regeneration of native vegetation, eradication and control of invasive plants and animals, support of capacity building initiatives and education and awareness raising activities.

Total grants received 2013-2014	Community NRM Group/Network
\$1 - \$5,000	Ancona Landcare, Bunbartha Kaarimba Landcare, Creightons Creek Landcare, Delatite Landcare Group, Echuca Landcare Group, Eildon Township Landcare, Flowerdale Primary School Junior Landcare, Gooram Valley Landcare Group Inc., Home Creek Spring Creek Landcare Group, King Parrot Creek, Environment Group Inc, Kinglake Landcare Group, Kinglake Scouts Junior Landcare, Kyabram Urban Landcare Group, Lower Goulburn CMN, Merton Landcare Inc, Naring landcare group, Nulla Vale Pyalong West Landcare Group Inc, Sheep Pen Creek land Management Group, Shepparton Mooroopna Urban Landcare Group, South Cathedral Landcare Group, South Yarrawonga Landcare Group, Strath Creek Landcare Group, Strathallan Family Landcare, Swanpool Landcare, The Friends of the Marysville Walks Inc., Udera Landcare Group, UT Creek Maintongoon Landcare Group, Whiteheads Creek Landcare Willowmavin Landcare Group, Yarrawonga Urban Landcare Group Inc., Yea High School Junior Landcare, Yea River Catchment Landcare, Yea Wetlands Committee of Management, Yellow Creek-Dairy Creek Landcare Group, Congupna Tallygaroopna Landcare, Muckatah Landcare Group Eildon Primary School, Alexandra Primary School, Avenel Primary School, Peranbin Primary School
\$5,001 - \$10,000	Warby Range Landcare Group, Warrenbayne-Boho Land Protection Group, Broken Boosey Conservation Management Network
\$10,001 - \$20,000	Strathbogie Tablelands Landcare Group, Mitchell and Surrounds Equine Landcare Group, Sunday Creek / Dry Creek Landcare Group, Granite Creeks Project Inc
\$20,001 - \$50,000	Glenaroua Land Management Group, Molyullah Tatong Tree and Land Protection Group, Superb Parrot Project, Sunday Creek / Sugarloaf Sub Catchments Inc, Hughes Creek Catchment Collaborative
\$50,001 - \$100,000	Upper Goulburn Landcare Network, South West Goulburn Landcare Network, Up2Us Landcare Alliance, Regent Honeyeater Project, Goulburn Murray Landcare Network, Strathbogie Ranges Conservation Management Network, Longwood Plains Conservation Management Network, Broken Catchment Landcare Network (Gecko Clan)
\$101,000 and above	Euroa Arboretum

### Traditional Owner engagement

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

The five-year Australian Government-funded project that supports a partnership between the Goulburn Broken CMA and the Taungurung community to work on country, continued providing opportunities for capacity building, employment and engagement in natural resource management. In addition to protecting the ecological character of Alpine bogs through works on country, the project builds capacity through training opportunities and engages Taungurung in cross-cultural participation through field days and workshops.

Yorta Yorta Nation Aboriginal Corporation, with the support of Goulburn Broken CMA Australian Government funding has continued to deliver works through its Woka Walla business arm. The Woka Walla business model enables Indigenous work teams to undertake contract works in natural resource management across Yorta Yorta country. Woka Walla has undertaken pest plant and animal control and fencing to protect the ecological character of the Barmah Ramsar Wetland and protected sensitive sand hill woodland sites on private and public land. The project continues to build skills and qualifications for the work team and build capacity for the Woka Walla business to be self-sufficient, enabling it to compete for contracts in the broader market.

The Traditional Owner engagement activities of the Goulburn Broken CMA integrate well and continue to deliver on the Department of Prime Minister and Cabinet's Indigenous Advancement Strategy Guidelines.

### Catchment condition

Government and regional communities' objectives are clearly aligned:

- 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 4,360 people in natural resource management activities every year (these figures are from the 63% of groups and networks that responded to a survey in 2012-13)
- 35 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. It has been involved in projects with local government and a neighbouring catchment management authority looking at helping farmers transition and adapt to less water. In addition, the Goulburn Broken CMA has been involved in the development of the Hume Region Growth Plan that aims to identify opportunities for encouraging and accommodating future growth and managing change 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.

## 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 community engagement action plans aligned to the Goulburn Broken CMA's overarching Community Engagement Strategy 2014-15. The Goulburn Broken CMA's Community Engagement Strategy was reviewed and updated in the first half of 2014 to capture changes in the way the Goulburn Broken CMA will engage with its stakeholders as a result of the development of the Goulburn Broken Regional Catchment Strategy 2013-2019, findings from the 2012 Wallis CMA Awareness Survey and subsequent Action Plan (developed late 2012), and changes in Victorian and Commonwealth government natural resource management funding and priorities.

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

## 2013-14 performance

Eighty-nine media releases were prepared in 2013-14, up on the 78 generated in 2012-13. A regular monthly column in the Country News (reaching more than 55,000 households) continued; the bi-monthly Connecting Community and Catchment e-newsletter reached almost 800 subscribers (a 15 per cent increase on 12-13); and e-newsletters were developed for a number of individual projects (e.g. for Regional Waterway Strategy Reference Group members). A weekly river heights table started running in the Shepparton News every Friday in response to community interest in how and why environmental water is being delivered. This table is also sent to angling clubs and fishing stores (including two stores out of the Catchment who requested this information). A YouTube video explaining environmental water was developed and the Goulburn Broken CMA continues to align its communication of environmental water activities with those of the Commonwealth and Victorian Environmental

Water holders and other agencies involved in the process. A monthly session on ABC Goulburn Murray's breakfast show discussing all thing flora and fauna, began in March 2014. An upgrade of the website was completed in the first half of 2014. The upgrade will provide greater capability, easier access, and address security issues.

From January to March 2014, a radio awareness campaign was run on commercial radio (Southern Cross Media's 3SR and High Country stations). Part of the package involved a weekly interview where we highlighted events, successes, programs and other CMA activities. These sessions generated public responses, with a number of follow-up phone calls and emails indicating that the public was interested in getting involved with many of our projects.

These more traditional engagement and communication approaches were complemented by an increased social media presence that is continually attracting individuals and groups that may not have engaged with the Goulburn Broken CMA previously. Facebook page postings averaged five a week. At least one 'tweet' a day is made via the Goulburn Broken CMA's Twitter account, and a Flickr account provides an engaging way to store publicly contributed photographs. A SoundCloud account was established to share the sounds collected by staff during audio monitoring and the sharing of this 'rich' content is proving popular across other social media platforms. The number of videos on YouTube increased, and cross-promotion of all content was a key focus of communication activities in 2013-14.

The Goulburn Broken CMA had sites at the Elmore Field Days (October) and Seymour Alternative Field Days (February), providing the organisation with a valuable opportunity to promote its activities and reach new audiences. Many of the program projects held very successful events – (refer to the community engagement section of each program for more information).

Collaborative campaigns between the state's 10 CMAs celebrated Biodiversity Month and Volunteer Week. The three northern CMAs also worked collaboratively to promote the Northern Eco-Connections program and are currently developing frameworks, reports and training programs to improve and highlight the three organisations' success and capability in engaging with the community.

The annual NRM awards evening was a great success, with about 100 people attending to celebrate the achievements of the five winners: Tom Abbottsmith-Youl – Tom's Paddock (Community NRM Sustainable Farming Award); Buxton Primary School (Community Education Award); Strath Creek Landcare Group (Community NRM Group Award); Broken Boosey Conservation Management Network (Community NRM Network Award); and Jacci Campbell (Hubert Miller Award).

## What's next?

Engagement with stakeholders is a priority during the implementation of the Regional Catchment Strategy and will be supported by:

- continuous investigation and development of the best ways to engage with the community;
- inclusion of a community engagement component in all project planning and development (with a focus on the social-ecological systems)
- increasing staff community engagement capability.

Partnerships with Indigenous communities will be enhanced and the wider community's understanding of traditional ecological knowledge will be expanded. Development of a Traditional Owners Engagement Model is under review.

The Communication and Marketing Strategy 2013-14 has been developed to complement all community engagement activities by promoting and sharing information about Goulburn Broken CMA activities. Actions in the strategy to do this include:

- support for Goulburn Broken CMA staff via a suite of communication and marketing tools

- external website upgrade
- embedding innovative communication and marketing approaches and
- support for implementing the RCS.

Liaison with government funders will continue to ensure:

- the impact of potential gaps in funding for regional priorities are minimised
- opportunities for non-traditional investment (eg industry) are explored.

Community-based natural resource management will involve:

- development of the Goulburn Broken CMA Community and Landcare Support Plan
- continuing to provide the catchment community with up-to-date information on developing Australian Government initiatives
- continuing to develop relationships with community natural resource management groups
- delivering Victorian Landcare Program community grants.

## Case studies

### Waterwatch in the Goulburn Broken Region

Waterwatch is a community water quality monitoring program that has been operating in the Goulburn Broken catchment since 1993, and celebrated its 20th anniversary in 2013.

The program, coordinated and delivered by Goulburn Valley Water, brings together school and community groups, concerned individuals and landowners, local councils and water authorities.

There are currently 234 sites actively monitored by 54 monitors in the Goulburn Broken Catchment.

Monitors test the quality of their local stream or water source so that practical actions can be taken to maintain and improve water quality.

The program provides water-testing gear to interested people and trains them to use it correctly.

Water quality data collected since the program's inception can be viewed at: [www.vic.waterwatch.org.au](http://www.vic.waterwatch.org.au)

Community volunteer monitors from widely separated sites can share their results to quickly identify problem areas.

The data is also used by resource management agencies to monitor river health changes following improvement works.

### Fruit Industry Employment Program

Since its beginnings in August 2013, the Fruit Industry Employment Program (FIEP) has employed over 30 employees within five different organisations. These work teams have undertaken more than 670 hectares of weed control and 28 kilometres of fencing, which surpasses the program's targets of 100 hectares of weed control and 20 kilometres of fencing. Importantly they have also been delivering other actions, such as nest-box manufacture, vegetation planting, native seed collection, habitat establishment, fire recovery works, debris removal, recovery actions and general maintenance activities along wetlands and streams and administrative support.

They will continue to deliver onground works through an extension of the FIEP timelines to December 2014, via a joint effort with Goulburn-Murray Water, Parks Victoria, Greater Shepparton City Council, Moira Shire and the Goulburn Broken CMA: a great example of partnerships in action.

The program is based on previous successful State Government programs run in the catchment that provided employment to landholders affected by drought and flood. The program continued to allow affected communities to keep skilled people in the district while providing support to important environmental projects that improve and protect local waterways and landscapes. The program has been designed in consultation with orchardists to be flexible. This allows participants to stay involved in their orchards to make important decisions about the business in an ever-changing operating environment.

# Planning and responding (including research and development)

Compiled by Katie Warner Chris Norman, Fiona Lloyd, Mark Turner and Rod McLennan

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

Decision focus <sup>i</sup>	Examples of evidence used to inform decisions	1990 <sup>ii</sup>	Certainty of rating	2014	Certainty of rating	Trend
2013-14 performance	Corporate Plan KPIs related to planning and responding (see page 95) 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	↑ <sup>iii</sup>
Catchment condition <sup>iv</sup>	Anecdotal <sup>v</sup> Systems in place related to planning and responding	Poor	Low	Satisfactory	Low	↑

<sup>i</sup> See Appendix 1 for notes on the analytical framework (page 130), including an explanation of the decision focus and ratings.

<sup>ii</sup> Ratings for 1990 have been determined using our understanding in 2014 of what the situation was like in 1990.

<sup>iii</sup> Assumed to parallel the government funding trend for strategy development.

<sup>iv</sup> 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.

<sup>v</sup> 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.

### Government investment

Included as part of investment in 'Governance' (page 80).

### Major strategic references

Refer to Regional Catchment Strategy and sub-strategy structure diagram on page 24.

## 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 from about 2005.

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 new Goulburn Broken Regional Catchment Strategy 2013-2019, developed in partnership with the Catchment community, signals an exciting new phase for the Catchment and the Authority. Launched in 2013 by the Minister for Environment and Climate Change, the Regional Catchment Strategy builds on this work, emphasising the resilience of the Catchment's 'social-ecological systems'.

## Regional Catchment Strategy and sub-strategies

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. During 2011 and 2012, the Goulburn Broken CMA led the development of the new Goulburn Broken Regional Catchment Strategy 2013-2019. Working with many stakeholders and the Catchment community, the Regional Catchment Strategy sets the priorities and targets for directing the Catchment's resources over the next six years towards achieving environmental, social and economic benefits.

### The resilience approach

Resilience is the ability of the Catchment's people and environment to absorb stress while continuing to function in a desired way. A series of major events in recent years, from bushfires, droughts and floods to the global financial crisis, has severely tested the Catchment's communities and ecosystems, catalysing an emphasis on developing resilience in preparing the Regional Catchment Strategy. The resilience approach to catchment management focuses on the connections between people and nature, how these connections change and what can be done to achieve desired, balanced goals for resilience. Consistent systems of people and nature are called social-ecological systems, which include elements such as land form, vegetation types, land uses, social structure and dynamics. Social-ecological systems exist at a range of connected scales, from site to the whole-of-Catchment. The scale chosen for decision-making considers the balance between being small enough to understand the details sufficiently, while being large enough to allocate resources efficiently.

The resilience approach and social-ecological systems underpin the Regional Catchment Strategy and its implementation.



## Setting objectives – Goulburn Broken Regional Catchment Strategy 2013-2019 objectives hierarchy

The diagram (below) details the objectives hierarchy for the Regional Catchment Strategy, which has been developed in four levels.

**Level 1** is the **50-year vision** which provides a general sense of what the community would like the Catchment to be. The vision reflects the important relationship between protection and use of the Catchment’s natural assets, which generate environmental, economic and social benefits.

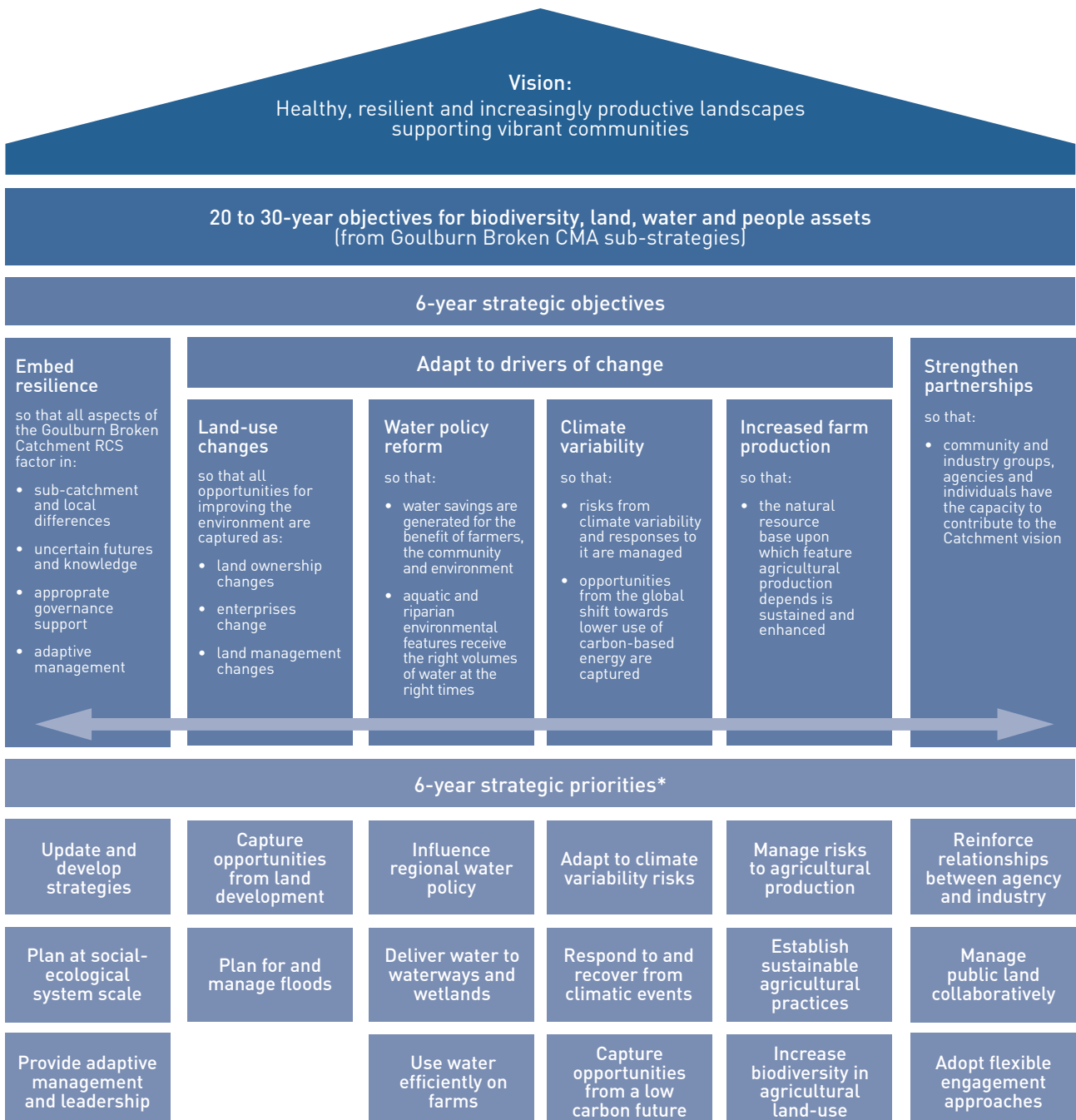
**Level 2** holds the **long-term 20 to 30-year biodiversity, land, water and people objectives**, found in the relevant sub-strategies developed by the Goulburn Broken CMA in consultation with the Catchment community. They guide effort by defining what is to be achieved within the different

asset classes of biodiversity, land, water and people. It is assumed that achieving these objectives will position the Catchment community on the path to achieving the vision.

**Level 3** is made up of **six-year strategic objectives** that help communicate the emphasis for management. It is assumed that achieving these objectives will enable progress towards 20 to 30-year biodiversity, land, water and people objectives.

**Level 4** includes **six-year strategic priorities**, which describe the focus for bundles of management measures needed to address the drivers of change. It is assumed that achieving these strategic priorities will indicate achievement of strategic objectives. Management measures generally describe the tasks to be undertaken over the next six years.

The Goulburn Broken Regional Catchment Strategy 2013-2019 objectives hierarchy



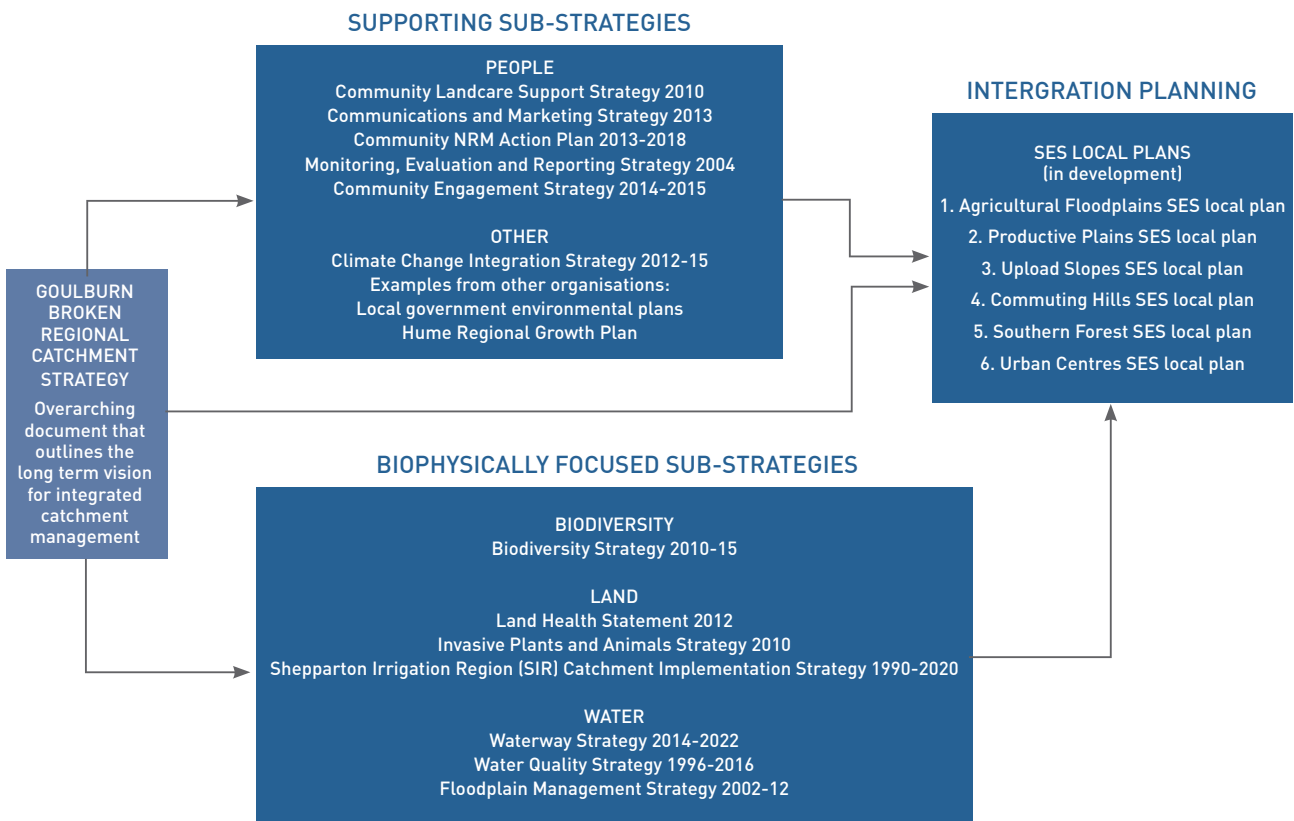
\* Strategic priorities describe the focus for bundles of management measures

The Goulburn Broken CMA also uses theme-based sub-strategies to provide direction, especially for investing in onground action. The diagram below 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 regional 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



## 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 region 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](http://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 137) and to summarise progress via long-term scorecards since 2005-06 (see page 13) 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, Department of Environment and Primary Industries research arms and the Goulburn Broken CMA, with integration of additional resources from the Department of Environment and Primary Industries, the National Water Commission, Goulburn-Murray Water Connections Project, irrigation industry service providers and users, and others. This partnership approach is pivotal in enabling the region to adapt quickly, with the focus of research on improving how farmers can irrigate more efficiently and sustainably. Investment in fast-flow irrigation, pipe and riser irrigation, pressurised irrigation, automation and irrigation scheduling systems are examples of outcomes from this research.

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](http://www.gbcma.vic.gov.au)

## 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 appendix two of the Regional Catchment Strategy 'Evolution of Goulburn Broken RCS and sub-strategies').

The formal and informal systems (including for governance, community engagement 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 regional community as a world leader in natural resource management: the Goulburn Broken CMA is widely regarded as a responsive, leading and action-focused natural resource manager. This was most recently highlighted in feedback from Dr Brian Walker, CSIRO Honorary Research Fellow and Chair of the Board of the International Resilience Alliance who commented that the Goulburn Broken Regional Catchment Strategy 2013-2019 was '*...an excellent document that illustrates how well you guys have grasped complex systems, and how to deal with them. It is way ahead of most NRM planning*'.

## Long-term strategy implementation progress

Refer to 'Background' and 'Long-term scorecard' (that rates progress against strategies under investment areas) on page 13.

## Investment patterns and maturity of approaches<sup>i</sup>

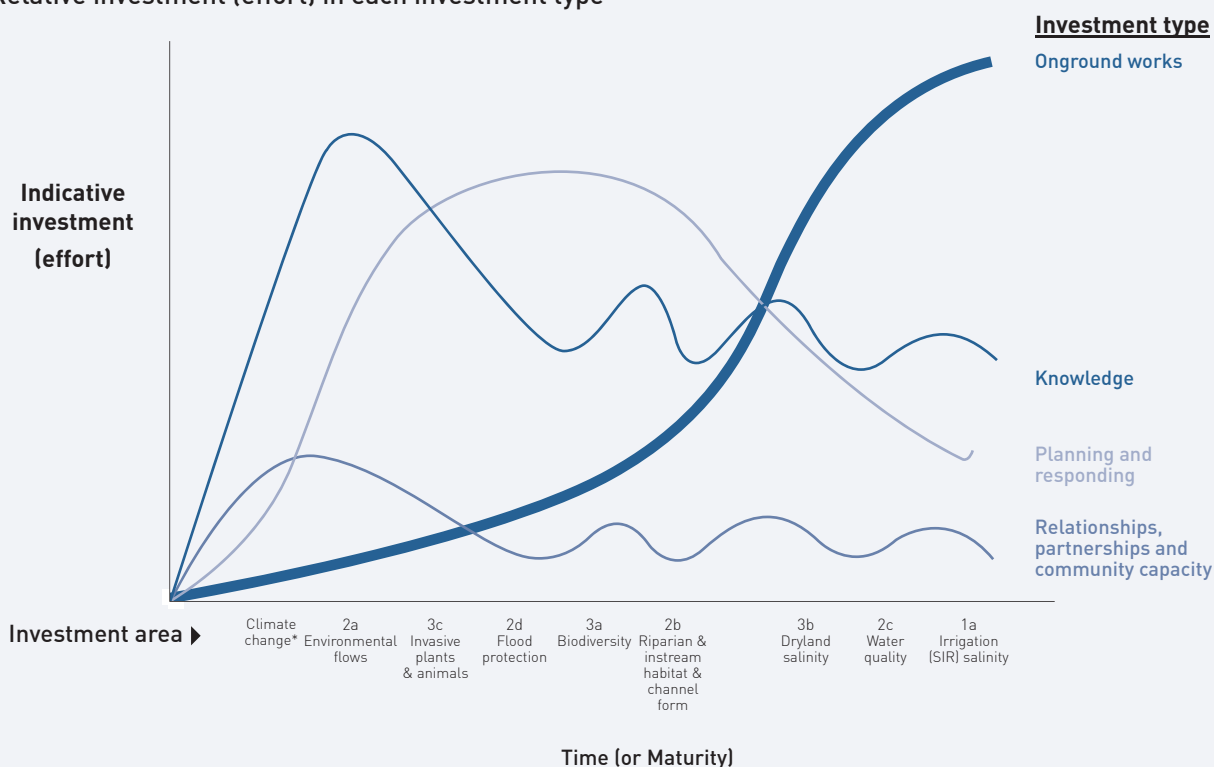
The stylised investment patterns shown in this graph show the Goulburn Broken CMA is at different stages of maturity of implementing approaches in its eight environmental investment areas.

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.

Currently, 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. Efforts are being made to broaden investment to further satisfy our strategy and community needs.

### 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

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

## 2013-14 performance

### Local plan development

A broad range of engagement has, and continues to occur, to develop local plans for each of the broad geographic areas identified in the RCS.

In the agricultural floodplains a 'taskforce' has been established to do this. As part of the process the Irrigation regions Land and water Management Plan will be reviewed and rolled up into the one document, a Local Plan.

As with the RCS the Goulburn Broken CMA's WeConnect site will be used to develop the plans, offering a broad audience the ability to provide input.

### Resilience conference

The Goulburn Broken CMA was again represented at the international resilience conference by CEO Chris Norman. The conference, entitled 'Resilience 2014 – Resilience and development: Mobilizing for Transformation' was held in Montpellier, France. Chris presented at the conference and participated in an invitation only preconference workshop.

### Resilience assessment

In what is believed to be a world first, the resilience of a catchment-based region was reassessed. A workshop was held in July 2013 with key stakeholders of the region to review the finding and what had changed since the 2009 published assessment. This reassessment is being documented and is expected to be available soon.

## Progress against strategic objectives of the 2013-19 Goulburn Broken Regional Catchment Strategy

	Actions
To embed the resilience approach	Social-ecological system (SES) scale planning and implementation underway. Continuing engagement to build on knowledge and application of resilience at a catchment scale, including resilience assessment.
To strengthen partnerships	Local planning at SES scale is engaging community leaders (see page 40 for an example of this approach in the Shepparton Irrigation Region). Regional Operating Agreement signed, reinforcing important delivery arrangements between NRM organisations across the North East and Goulburn Broken catchments.
To adapt to land-use changes	The Goulburn Broken CMA continues to work with a range of partners including DEPI, GMW and local government to ensure opportunities for improved production, management and environmental outcomes are captured (see case studies on pages 41 and 54).
To adapt to water policy reform	Significant achievements over that past 12 months have contributed to achieving this objective. (see 2013-14 Performance on pages 35 (Sustainable Irrigation) and 42 (Environmental Flows)).
To adapt to climate variability	See page 31 for details on the approach taken by Goulburn Broken CMA to increase catchment resilience to climate variability.
To adapt to increased farm production	The Goulburn Broken CMA continues to work with communities and partners to improve farm production while sustaining the natural resource base. Investment in projects such as those outlined on pages 35 and 64 contribute to achieving this objective.

Plan or strategy	Progress	Further details
Corporate plan	Corporate Plan key performance indicators were satisfied appropriately.	Key performance indicator progress report page 95.
Goulburn Broken Regional Catchment Strategy 2013-2019	Planned actions are progressing.	See table above.
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, GMW Connections Project and an increasingly variable climate).	Page 35. <a href="http://www.gbcma.vic.gov.au">www.gbcma.vic.gov.au</a>
Goulburn Broken CMA Climate Change Integration Strategy 2012-2015	The Strategy was finalised early in 2012 and implementation is underway.  The Goulburn Broken CMA: <ul style="list-style-type: none"> <li>- is undertaking a major Australian Government project on NRM planning for Climate Change</li> <li>- is an active partner of the Goulburn Broken Greenhouse Alliance, which attracts funds to help local government adapt to climate change</li> <li>- 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</li> <li>- is contributing to climate change research through Monash University and CSIRO</li> <li>- remains a member of a National carbon working group.</li> </ul>	See Climate Change section page 31.
Goulburn Broken CMA Monitoring, Evaluation and Reporting Strategy 2004	Actions are 95 per cent completed. The Strategy will be reviewed in 2014-15 to align with the new Goulburn Broken Regional Catchment Strategy 2013-2019.	See 'Knowledge inventory' and appendix two of the Regional Catchment Strategy ('Evolution of Goulburn Broken RCS and sub-strategies')



Plan or strategy	Progress	Further details
Goulburn Broken Information and Communication Technology Strategy 2014-2017	Internal strategy to guide development and delivery of information and communication technology services. Development of the strategy was postponed due to staff resourcing challenges and a desire to close out the previous strategies objectives. Resources focused on maintaining existing capability to meet agreed ICT service level agreements and completion of the office telephony replacement project.	The Information and Communication Technology Strategy is scheduled for completion in the last quarter of 2014.
Biodiversity Strategy for the Goulburn Broken Catchment 2010-2015	Annual reviews have found that the majority of actions are on track.	See section on investment area 3a – Biodiversity page 57.
River Health Strategy Addendum 2010	The Addendum is being implemented according to schedule. The Strategy is completed and will be endorsed in 2014-2015.	See investment area 2 – River health page 42.
Goulburn Broken Invasive Plants and Animals Strategy 2010	Since the Goulburn Broken Invasive Plants and Animals (IPA) Strategy was released in April 2011, all new onground IPA projects have 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.	<a href="http://www.gbcma.vic.gov.au">www.gbcma.vic.gov.au</a> and page 67.
Communication and Marketing Strategy 2013-14 and Community Engagement Strategy 2014-15	The strategies were reviewed and updated to reflect development of the Goulburn Broken Regional Catchment Strategy 2013-2019; findings from the 2012 Wallis CMA Awareness Survey and subsequent Action Plan (developed late 2012); changes in State and Commonwealth government natural resource management funding and priorities.	Page 18.
Workforce Strategy 2013-2018	Internal strategy to guide development and delivery of the range of human resources and workplace objectives to ensure the right capability, culture and workplace to enable the operations of the Goulburn Broken CMA. Priorities identified in the strategy is annual workforce planning built into the broader business planning cycle and a focus on leadership development.	See Human Resource section page 70.
Workforce Plan and Capability 2013-18	Part of the annual business cycle to forecast workforce needs to ensure appropriate staffing mix with the necessary capability to ensure current and future delivery of business objectives.	See Human Resource section page 70.
Goulburn Broken Regional Floodplain Management Strategy (Interim) 2014-2016	An interim regional floodplain strategy was developed to assist in prioritising activities for the period 2014-16 whilst the state strategy is finalised and funding provided for a new regional strategy.	See Floodplain Management section page 51.

## What's next?

Implementation of the Goulburn Broken Regional Catchment Strategy 2013-2019 will be the primary focus of the Goulburn Broken CMA over the next six years.

Goulburn Broken CMA systems and processes will be aligned to facilitate implementation of the Regional Catchment Strategy through both direct delivery by the Goulburn Broken CMA and delivery of Catchment partners.

The development of social-ecological systems integration plans will be an important step in recognising local differences across the Catchment, building on relationships with local communities and partners to manage the Catchment in an adaptive way.

The ongoing review of sub-strategies to ensure alignment with Regional Catchment Strategy objectives and the incorporation of the resilience approach, including social-ecological systems. The review and implementation of sub-strategies have been critical in Goulburn Broken Catchment decision-making for over two decades. Because the context behind each sub-strategy varies and is continuously changing, sub-strategies are renewed according to their own context, independent of the over-arching RCS renewal cycle. Sub-strategies are developed in consultation with government and community organisations and individuals, providing details for investment plans and priorities.

The Goulburn Broken Waterway Strategy is expected to be endorsed by the Victorian Government in 2014-15.

Continued investment in the partnerships that have evolved over the past couple of decades have been the result of persistence and hard work. Implementation of the Regional Catchment Strategy will require effort and ownership by landholders, agencies, community NRM groups and Traditional Owners. The Goulburn Broken CMA expects that continued significant efforts are needed to maintain and improve partnerships already developed and initiate new partnerships.

The Goulburn Broken CMA will increase triple bottom line outcomes by accelerating the rollout of the Farm Water Program, maximising water and productivity gains through connections to a modernised irrigation system. This Program is underpinned by a water savings calculator, informed by continually updated research on water-use efficiency.

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 the 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 2014-15 will continue to be based on outcomes of the 2011 Organisational Performance Review, in the context of implementing the Regional Catchment Strategy. 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.

A review of the Goulburn Broken Monitoring, evaluation and Reporting Strategy 2004 will be undertaken to align with the Goulburn Broken Regional Catchment Strategy 2013-2019 and concepts of adaptive management.

## Case study

### Good relationships help with fire recovery

Fires swept through parts of the Catchment's Agricultural Floodplains and Commuting Hills on the weekend of February 9.

Well-established partnerships, good communication and experience in dealing with past disasters, meant support and recovery efforts swung into action quickly and effectively.

In the north of the Catchment crews employed through the Goulburn Broken CMA's Fruit Industry Employment Program (FIEP) helped Wunghnu and Numurkah landholders.

FIEP crews employed by the Goulburn Broken CMA, Parks Victoria and Moira Shire Council helped remove and replace fire-damaged fences along more than 20 km of creeks and wetlands adjoining private property.

Russell Smith, who runs a 100 acre mixed-farm operation that is bordered by Broken Creek and Kinnairds Wetland, said the quick response to fix more than one kilometre of damaged fences on these boundaries was 'fantastic'.

'All our strainer posts were damaged – it's such a help they (the crews) got on to it so quickly,' Russell said. 'I've got cows just about ready to calve and they've been stuck in tiny paddock. Once the boundary fences are fixed I'll be able to get on to the internal ones. They (the FIEP crews) are doing a great job.'

Goulburn Broken CMA was able to quickly engage the South West Goulburn Landcare Network (SWGL) to coordinate the onground works within the Kilmore fire area in the Catchment's south. Following the 2009 fires the Upper Goulburn Landcare Network (UGLN) gained a unique insight into what needed to be done to get the recovery effort under way quickly and efficiently. Forums such as the Community NRM Chairs Forum has promoted great relationships between our networks and soon after the fires the UGLN offered Chris Coburn to SWGL on a short term secondment so that they could hit the ground running.

Chris said more than 180 volunteers had completed 6.7 km of fencing and removed 4.3 km of damaged fences.

'The volunteers have done a tremendous amount of work and shown huge commitment,' Chris said. 'We've had volunteers from TAFE, banks and major accounting firms. We've been fortunate too to have a group of four-wheel drivers from Melbourne come up every second weekend to help with the fencing and that's been a fantastic help.'

## Climate change

Compiled by Kate Brunt

### Government investment

Climate change crosses all investment areas, programs, strategies and actions. In 2013-14, the Australian Government continued to invest in the Regional NRM Planning for Climate Change in the Goulburn Broken NRM region project.

### Major strategic references

- Goulburn Broken CMA Climate Change position paper 2007
- Goulburn Broken CMA Climate Change Integration Strategy 2012
- Victorian Climate Change Adaptation Strategy 2013
- Several other Commonwealth and State strategic documents that address climate change

### Background

Climate change is a key issue impacting on the resilience of the Catchment's natural resources and therefore requires a response by key NRM agencies such as the Goulburn Broken CMA. The interactions between climate, biodiversity, agriculture, water resources, land systems and people are complex, interconnected and difficult to communicate and respond to. Projections for future climate scenarios in the Catchment to 2030 predict changes such as an increase in the frequency and temperature of hot days, reduced and erratic rainfall, less snow and frosts, and more frequent extreme events such as bushfires and storms. All potential interactions between climate and natural resources need to be considered if we are to adapt to climate change. This requires complex models, strategies and adaptive management to deal with uncertainties. In recognition of this, climate change is a 'driver of change' in the Goulburn Broken CMA Regional Catchment Strategy.

It is important to have strategies in place, for responding to climate change. Terrestrial and freshwater ecosystems are considered to be most vulnerable to the effects of climate change. Agricultural industries will also need to adapt to a changing climate if they are to be viable in the long term. The Goulburn Broken CMA aims to be a leader in assisting the community and natural environment in adapting to 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 2012-2015, 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 and
- minimise Goulburn Broken CMA's footprint.

### Catchment condition

Currently, the catchment condition is considered to be poor. Under climate change scenarios the trend in general will be for decreasing condition. This is because climate change will negatively affect the functioning of systems in the catchment, such as: soil health and composition, which will be increasingly acidic, and affected by fire, drought, floods and salinity; water resources will be unpredictable, and be put under more pressure through extraction; invasive species will increase and/or change in distribution, which will change ecosystem function, soils and habitat values.

### Biodiversity

Climate change is anticipated to generally have a negative influence on biodiversity. Most biodiversity condition indicators have been assessed to be following a negative trend. Many species, ecosystems and native vegetation communities are already declining in quality and extent due to vegetation loss, and climate change will add to this loss through the inability of species to adapt to changing conditions. The compounding effects of climate change will result in a downward spiral of habitat loss and species extinction, changes in ecosystem function, loss of key species and further fragmentation, which will lead to the inability for species to move across the landscape and adapt to a changing climate.

In response to loss of habitat, revegetation projects are being implemented that increase connectivity across landscapes. These activities, or 'carbon farming' introduce a new 'driver of change' that will influence biodiversity and catchment condition. Revegetation is anticipated to be beneficial to biodiversity and provide an alternative funding source for landowners. Planting large areas of locally indigenous species will result in increasing native vegetation extent and connect and protect existing native vegetation remnants, allowing species to move across the landscape. Strategic planning is required to ensure that limited funds result in positive outcomes, because carbon farming could pose risks to biodiversity. For example: extensive plantings in some areas may affect water flows upon which riparian and aquatic ecosystems depend; use of non-indigenous, monoculture plantings would provide little habitat values; and productive land could be compromised.

## Land

Climate change is anticipated to generally have a negative effect on soils and production.

Climate change is likely to affect the distribution and viability of agricultural enterprises such as cropping and grazing because of extreme weather and climate events, and changes in the distribution of pests and diseases. These factors are anticipated to be increasingly important due to climate change.

As with biodiversity assets, most indicators of land condition were assessed to be following a negative trend.

## Water

Climate change will particularly affect water supply, use and management. The interactions of environment, water policy and use, community desires, and increased unpredictability of the amount, seasonality and distribution of water are complex. Climate change is anticipated to lead to new pressures through changes in rainfall and snow regime, reduced average run-off, and increased air and water temperature, resulting in increased evaporation rates.

Reforms put in place may help to mitigate these effects to some degree. Issues such as wetland management through artificial watering, changes in groundwater extraction and river health will all be affected by climate change.

Most indicators of water condition were assessed to be following a negative or neutral trend (the latter reflecting NRM program outcomes and water policy reforms). Climate change is projected to have a negative impact on trend for most condition indicators.

## Long-term strategy implementation and 2013-14 performance

Progress towards the Goulburn Broken CMA Climate Change Integration Strategy 2012 is outlined below:

Outcomes	Goals	2013-14 progress
Integrate climate change into Goulburn Broken CMA programs	100 per cent of all sub-strategies include climate change analysis and actions as they are renewed or developed.	On target Climate change has been considered in the development of the Biodiversity Strategy, the Goulburn Broken Waterway Strategy, the Community Natural Resource Management Action Plan and the Regional Catchment Strategy. The Goulburn Broken CMA has received funds through the Australian Government to develop a Climate Change Sub-Strategy, which will build on the current sub-strategies and Regional Catchment Strategy
	80 per cent of biophysical projects include contributions to the Climate Change Integration Strategy's purpose in funding bids and reporting by 2015.	On target Biophysical projects funded through the Australian Government contribute to this goal, through the implementation of onground activities focusing on landscape scale restoration. The Groundwater and Salt program has adjusted to be an adaptive program, reflecting the variable climate and fluctuating impacts on shallow water tables.
Improve understanding of climate change	Ensure adequate climate change information is available to add value to planning and investment decisions.	On target There is an increasing amount of climate change information available through the Stream 1 project and the Murray Basin Cluster Stream 2 project (of which we are a Cluster Leader). The projects are allowing for better analysis of the available information and development of the Adaptive Management Framework provides a model for incorporating information programs.



Outcomes	Goals	2013-14 Progress
	Help grow the capacity of our partners in understanding and responding to Climate Change	On target The Goulburn Broken CMA has continued to work with the Department of Environment and Primary Industries and local government authorities through the Goulburn Broken Greenhouse Alliance to share information and increase the understanding of the effects of climate change. The Regional Landcare Facilitator has been working with the broader community to convey the issues around climate change.
	Improve the Goulburn Broken CMA's knowledge of potential impacts of climate change by initiating or partnering one climate change research project each year.	Exceeded target We are collaborating through the Victorian Regional NRM Planning for Climate Change Forums on a number of projects. The Goulburn Broken CMA has a key role as Cluster Leader for the Murray Basin Cluster in the Planning for Climate Change (Stream 2) project lead by CSIRO.
	Develop a quantitative measure that determines the contribution to the Strategy's purpose by 2015.	On target Work undertaken through the NRM Planning for Climate Change project will provide progress towards this goal.
Pool and attract resources	Source at least \$2 million of new funds through climate change avenues for Goulburn Broken CMA and partners by 2015.	Exceeded target \$6.7 million has been sourced through Australian Government fund sources
	Increase the ability of organisations across the catchment to attract climate change funding, by partnering six climate change related projects led by other organisations by 2015.	On target The Goulburn Broken CMA has partnered with the Goulburn Broken Greenhouse Alliance which was successful in receiving \$2.9 million for a street lighting project and \$200,000 and Agriculture Transformation Project.
Build catchment resilience into sequestration activities	Ensure 100 per cent of carbon sequestration activities undertaken by the Goulburn Broken CMA take into account and align with standards to promote resilience of the catchment by 2015.	On target The development of the Australian Government's Direct Action Policy may provide opportunities to promote multiple outcomes from bio-sequestration and the Goulburn Broken CMA has commented on a range of relevant policies, such as CFI Methodology. Work is also underway through the Regional NRM Planning for Climate Change project to help identify priority areas for carbon farming projects.
	Encourage other government agencies and industry to take into account and align with standards to promote resilience of the catchment.	On target Key partners have been involved in the Regional NRM Planning for Climate Change project and the development of a climate change vulnerability assessment
Support community mitigation efforts	Partner 5 community climate change projects/ organisations by 2015.	On target The Goulburn Broken CMA has partnered with the Goulburn Broken Greenhouse Alliance on three projects to date.
Minimise the Goulburn Broken CMA footprint	Implement the 2012-14 Reducing our Footprint targets and actions.	See Environmental footprint Section page 77.
	Update and further develop the Reducing our Footprint Action Plan for 2015-18 by January 2015.	See Environmental footprint Section page 77.

Included below are additional activities that have occurred, mainly through other Goulburn Broken CMA programs.

### Community engagement

The Goulburn Broken CMA continued to support the Goulburn Broken Greenhouse Alliance. The Goulburn Broken Greenhouse Alliance is implementing an 'Agricultural transformation under climate change' project which will provide vital planning information for the Catchment Management Authority.

A community forum in November included a discussion around climate change with a range of community members. These discussions have resulted in identification of the need to have a series of 'kitchen table discussions' across the Catchment, where key individuals were given the opportunity to comment on the impacts of climate change and adaptation options.

Engaging the community on mitigating the effects of climate change is also occurring through onground works projects funded through the Australian Government.

### Planning and responding

The Goulburn Broken CMA has embarked on major climate change planning activities this year funded through the Australian Government. The work will result in a Climate Change Planning sub-strategy to better integrate climate change adaptation and support the implementation of the Goulburn Broken Regional Catchment Strategy 2013-2019 (RCS). The sub-strategy will:

- identify priority landscapes for climate change adaptation and mitigation in the context of improving landscape resilience (eg through revegetation with indigenous species)
- identify management actions for climate change adaptation and mitigation, including carbon sequestration, within priority landscapes
- identify risks to catchment processes from carbon sequestration activities and mitigation actions
- be informed by engagement with the community and stakeholders
- will outline a plan for implementing the RCS adaptive management framework

This work will result in a NRM plan that incorporates climate change mitigation and adaptation strategies that can maximise opportunities for carbon biosequestration and climate change adaptation activities in the Goulburn Broken Catchment.

### Actions

To address threats of Climate Change, the Goulburn Broken CMA Land and Biodiversity program runs a number of projects that focus on climate change adaptation. This includes projects that increase the amount and connectivity of habitat. It supports climate change mitigation activities through soil carbon sequestration in the short term by supporting, grazing management, increased perennial cover and potential net primary production to capture more carbon and reducing losses through erosion or high levels of oxidation while more extensive, longer term abatement programs are put in place in the economy. See the Land and Biodiversity Section page 55 for details of these projects.

The river and wetland health program continues to address climate change threats by supporting research into climate change mitigation and adaption measures and undertaking a variety of targeted onground works to increase ecosystem resilience. These onground works include:

- Fencing, stock management, weed control and revegetation to protect and restore riparian vegetation.
- Increasing in-stream woody debris to improve waterway habitat complexity.
- Delivering environmental water to waterways and wetlands to maintain and connect critical aquatic habitats.
- Removing barriers to fish movement to increase the availability of habitat and allow migration.
- Working with partners and landholders to manage point and diffuse sources of water pollution.

### What's next?

The next year will see further development of the NRM Planning for Climate Change Sub-Strategy, through refinement and testing of a newly developed tool, further community consultation and the implementation of an adaptive management framework.

The Goulburn Broken CMA will continue to be a Leader for the Murray Basin Cluster of the 'NRM Planning for Climate Change Stream 2' initiative, which supports the CSIRO.

## Investment area 1 – Sustainable Irrigation

### Investment area 1a – Shepparton Irrigation Region salinity: watertables and River Murray salinity

Compiled by: Carl Walters, Rachael Spokes, Helen Murdoch, Rebecca Pike, James Burkitt, Megan McFarlane, Jasmine Dick, Lisa Duncan

Decision focus <sup>i</sup>	Examples of evidence used to inform decisions	1990 <sup>ii</sup>	Certainty of rating	2014	Certainty of rating	Trend
2013-14 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 between 1990 and 2014)	n.a.		Below target	High	↓ <sup>iii</sup>
Catchment condition <sup>iv</sup>	Watertable salinity and depths Salt disposed to River Murray Salinity of environmental features Management systems	Poor	Low	Satisfactory	Medium	↓ <sup>v</sup>

<sup>i</sup> See Appendix 1 for notes on the analytical framework, including an explanation of the decision focus and ratings.

<sup>ii</sup> Ratings for 1990 have been determined using our understanding in 2014 of the situation in 1990.

<sup>iii</sup> Assumed to parallel government funding trend. Trend is declining due to funding levels being below strategy requirements.

<sup>iv</sup> 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.

<sup>v</sup> Trend is declining due to shallow watertable depths returning.

#### Government investment, \$000

2011-12	2012-13	2013-14	2014-15 <sup>i</sup>
24,928	45,499	35,367	13,808

<sup>i</sup> Forecast based on advice at July 2014.

#### Major strategic references

- Shepparton Irrigation Region Catchment Implementation Strategy 1990-2020
- Murray-Darling Basin Salinity Management Strategy 2001-15.

#### 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 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, with the impact of no action having a potential \$100 million direct negative impact on the region's production.

The Murray-Darling Basin Authority recognises that managed discharges of salt to waterways from the Shepparton Irrigation Region is required 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.

The Sustainable Irrigation Program Advisory Group addresses salinity through four sub-programs, each supported by working groups: Farm and Environment, Groundwater and Salinity Management, Surface Water Management and Farm Water. These working groups comprise agency staff and, most importantly, community members: Goulburn-Murray Water (GMW) Water Services Committees, the Victorian Farmers Federation, local government, and industry and environment groups are represented.

Different farm sectors have different salinity management needs. Shifting productive use of water for irrigation in recent years resulted in some farm sectors changing. Regional tertiary industries are also adapting in response to changing supplies of primary produce and more volatile market conditions. The renewed confidence in the dairy industry has seen new factories open to supply niche markets and companies predict significant increase in demand, with increased interest in the green credentials of our region to support their products' attractiveness. These changes affect the types and amount of benefit from investment in salinity management.

## Catchment condition

The risks of salinisation and waterlogging have increased due to the return of wetter conditions in recent years. The trend of the shallow watertable rise is alarming given how slowly it fell during the drought and the recent rapid rise. The increased risks are due to:

- rainfall on an irrigated catchment
- the limited funding towards surface and sub-surface drainage works (over the last 10 years in particular).
- increased irrigation volumes in some areas because of large-scale investment in irrigation infrastructure since 2009.

## Long-term strategy implementation

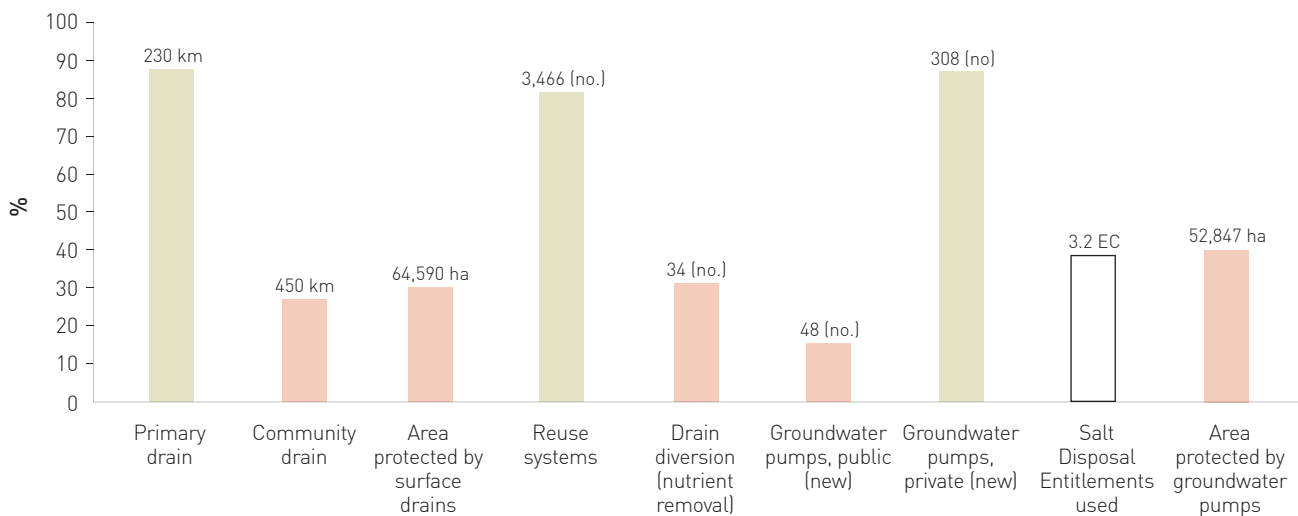
Farm works were accelerated by the Commonwealth On-Farm Irrigation Efficiency Program, Victorian On-Farm State Priority Project and Victorian Farm Modernisation Project funding to the Farm Water Program, which has increased the focus on farm works, generating improved water management and savings. Main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

Regional infrastructure works (public drains and public groundwater pumps) are behind schedule due to revised priorities and a significant decline in government investment over recent years.

The Shepparton Irrigation Region community's irrigation modernisation project, which began implementation in 2008 through the Northern Victorian Irrigation Renewal Project, now called the GMW Connections Project, is also helping to reduce salinity threats. It is primarily aimed at achieving water savings for the benefit of the environment, although as clearly demonstrated following the return of more average rainfall, shallow watertables are significantly driven by rain-induced accessions.

The reporting of progress against salinity impact targets is carried out annually and was once again well received by the Murray-Darling Basing Authority, demonstrating that we are proactively monitoring and responding to changed requirements.

**Shepparton Irrigation Region Catchment Implementation Strategy's 1990-2014 target achieved<sup>i,iii</sup> %**  
(achievements listed on top of each bar)



i Cumulative figures on landforming are not included from 2012-13: they are difficult to track and assumptions behind these figures are being reviewed.  
 ii The method to set the cumulative target was modified from 2012-13 to be: 1990-2020 plan target multiplied by the number of years since 1990 divided by 30.

## 2013-14 performance

Implementation of the Shepparton Irrigation Region Catchment Implementation Strategy, which began as the Shepparton Irrigation Region Land and Water Salinity Management Plan, continues in widely varying climatic conditions and changing funding priorities. The inability to meet community demand for surface drainage and related salinity control have impacted on the region. The return of high watertables has increased demand for salinity control and improved irrigation systems that are connected to surface and sub-surface drainage. The autumn and winter rainfall this year caused a significant area of the irrigated landscape to be waterlogged during the following winter months.

The program continues to link implementation of the Strategy with various modernisation programs, especially the GMW Connections Project and the Farm Water Program, and optimises opportunities presented by changes to these delivery systems. The on-farm changes are controlled and delivered through whole farm plans, ensuring integration with other parts of the irrigation program.

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

The Farm Water Program continued to roll out in 2013-14 (see case study page 41), with 171 Round 2 Farm Water Program projects completed, saving 27.1 gigalitres of water, with 13.6 gigalitres transferred to the Australian Government for environmental purposes. An additional 132 projects have been funded through Round 3 of the program, which received funding from the Victorian Farm Modernisation Priority Project (tranche 1 \$30 million). Round 3 water savings are expected to reach 16.1 gigalitres, with 59 per cent transferred to the Australian Government for environmental purposes.

### Community engagement

The Sustainable Irrigation Program Advisory Group, the various sub-program working groups and their connections to GMW's Water Services Committees, continue to actively link the broader community, various action strategies and their implementation.

The sub-program Farm and Environment, Groundwater and Salt working groups have been very active, with robust discussion around adaptive management approaches. The Farm and Environment Working Group and the Sustainable Irrigation Program Advisory Group have input into the Farm Water Program, such as testing the various approaches to each funding round. The Surface Water Management Working Group has gone into recess.

The Groundwater and Salt Working Group has been aligning the new tariff structure and developing a replacement for the Shepparton Irrigation Region's Groundwater Management Plan with a more flexible and adaptive 'Local Plan'.

The Sustainable Irrigation Program continued to engage regularly with local councils, other agencies, and regional leaders through representation at a variety of forums and committees, providing alignment and common understanding of each organisation's perspective on issues and determining approaches to bring about Catchment-wide change.

The Sustainable Irrigation Program has pursued connections to the broader community through:

- community representation on the Water Technology Cluster
- showcasing the Whole Farm Plan Program, irrigation efficiency program and other water use activities from a research and extension perspective at the Water Technology Cluster Irrigation Expo
- membership on the 'Surface Irrigation' special interest group formed under the umbrella of Irrigation Australia Limited (IAL)
- presentation of conference papers at various opportunities, including the NRM Conference in Tasmania, the IAL Conference in Queensland and the 3rd International Salinity Forum in California
- engagement with local government through the Municipal Catchment Coordinator position, the Senior Combined Partners meetings, and the RiverConnect project
- improved Border Check Irrigation and Pipes and Risers System farm walks in Lancaster and Katamatite, showcasing the latest surface irrigation management and technology provided through the Farm Water Program
- contributions to improved specifications around pipe and riser systems on whole farm plans to address concerns with poor standards of design and installation (this was done with input from GMW CP, DEPI staff and Irrigation Surveyors and Designers Group).

### Planning and responding

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 has progressed significantly, with a number of workshops and steering committee meetings held to develop understanding and gain widespread support for the project's approach of adaptive groundwater management.

Ten of the original twelve case studies from round 1 of the Farm Water Program were reassessed following a second season of experience. This used a partial budget analysis approach to determine the on-farm benefits from irrigation infrastructure investments under the Farm Water Program. These studies focused on: identifying the reasons for irrigators' participation in the Farm Water Program, understanding the types of technologies adopted on farms, establishing how improvements in efficiency have been achieved, and analysing the benefits and costs in relation to on-farm works. A further ten case studies from round 2 included interviews and the results are being compiled.

An improved border-check irrigation research project was completed to reflect the benefits of appropriate flow regimes for crop and soil types and this has now been extended, with a project around the within-bay distribution of irrigation water and opportunities to improve water use efficiency in this area.



The intensive groundwater and drain monitoring program continued and the annual watertable depth and nutrient discharge reports were published. The review of the Goulburn Broken CMA bore monitoring program has allowed both reduced costs and more efficient systems to capture information and transfer this to the relevant databases.

The review of water quality and groundwater monitoring across the Goulburn Broken Catchment progressed to the stage where individual site parameters have been modified, with some sites closed down completely. This will ensure we meet both reduced funding drivers whilst meeting our minimum reporting requirements.

Input into Victoria's 2012-13 annual report to the Murray-Darling Basin Authority's Basin Salinity Management Plan was completed and once again received favourably by the independent auditors of the MDBA.

An Irrigation Drainage Memorandum of Understanding Committee meeting was held during the year as the committee addressed the need for continued monitoring and reporting under this agreement. The increased flows from regional drains have highlighted the importance of this.

The 2012-13 report on nutrient loads from Shepparton Irrigation Region surface drains was completed. Although it showed nutrient export, the five-year average was still well within the long-term target, and, despite the continued return of long-term average rainfall, was still well below the levels experienced in the 1990s.

The review of water use licence conditions, especially of the role that Annual Use Limits play in meeting licence objectives, was completed during 2013-14. Options to protect the environment from poor irrigation practices can now be assessed in detail.

## Works and operations

### Groundwater and Salinity Management Program

No groundwater investigations were carried out in 2013-14 due to reduced funds. No private groundwater pump sites were finalised during the year.

The Millewa Nature Conservation Reserve project progressed after a change of landownership and GMW's Connections Project and our program has focused on removing or reducing irrigation on land immediately adjacent to the Reserve. Critically, a whole farm plan and a modified irrigation connection will expand the biodiversity benefits, reduce costs and improve productivity for the landholder.

The Shepparton Irrigation Region Salt Water Balance Project has progressed to the point where the knowledge around the hydrologic balance and the interaction between soil and salt in times of fluctuating shallow watertables has been widely accepted. An adaptive management framework is required to minimise ongoing costs while still protecting the region from threats to productivity. This approach will reflect trigger levels driven by a rise or fall in shallow watertables and should allow irrigators and landholders to manage the risk on their own property based on context.

The connection of the public groundwater pump system where sites discharge to the GMW channel system is progressing and case-by-case requirements for each pump site are being established as part of decisions for each GMW Connections Project. This effort will continue with GMW staff.

An adjustment to the Annual Use Limit in the Goulburn Murray Irrigation District was completed to reflect the dry conditions.

### 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 community drain received a planning permit during the year, with the group wanting to prepare for potential funding, finalise the design, ensure that landholders understand what is proposed and can address changing property owners through the planning scheme of council. Other minor completion works ensured partially completed projects would not cause issues in periods of high rainfall and the finalisation of the land acquisition process on a number of drains has commenced, although funds are limited.

### Farm and Environment Program

Whole farm plans on 79 properties covering 8,627 hectares were completed, including 35 'revised modernised' plans, bringing the total number of whole farm plans under this incentive to 4,247, covering 307,041 hectares or 67.2 per cent of the land within the Shepparton Irrigation Region under a Water Use Licence that is potentially able to be irrigated.

A review of the whole farm planning process and supporting guidelines commenced, which should ensure that the product delivered continues to meet requirements of both landholders and our region and deliver a value-for-money result for both landholders and investors in the program. The benefit of a whole farm plan will be put into real terms that can support a renewed business case for continued investment.

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 as part of the rollout of the Farm Water Program.

Round 1, 2 and 3 of the Farm Water Program funded a range of onground works.

## Farm Water Program achievements, whole-of-life to date (July 2010 until June 2014)

Action		Whole of Farm Water Program <sup>i</sup>			Shepparton Irrigation Region <sup>ii</sup>		
		Achieved	Target	Achieved, %	Achieved	Target	Achieved, %
Laser grading	ha	10,418	13,778	76	6,952	9,003	77
Drainage reuse systems	no.	158	226	70	105	154	68
Drainage reuse systems	ha	8,488	11,367	75	5,272	6,903	76
Gravity channel surface irrigation	ha	9,036	11,910	76	7,185	9,238	78
Pipe and riser irrigation	ha	11,819	13,679	86	5,947	6,860	87
Plastic lined channel	km	1.2	1.2	100	1.2	1.2	100
Irrigation scheduling systems	ha	627	916	69	538	685	79
Farm channel upgrade	km	8.5	9.2	93	6.1	6.8	90
Pressurised irrigation systems	ha	1,120	1,757	64	905	1,542	59

<sup>i</sup> The Farm Water Program covers parts of the Goulburn Broken, North East and North Central CMA areas. The Shepparton Irrigation Region is a subset of the Farm Water Program area and covers parts of the Goulburn Broken and North Central CMA areas.

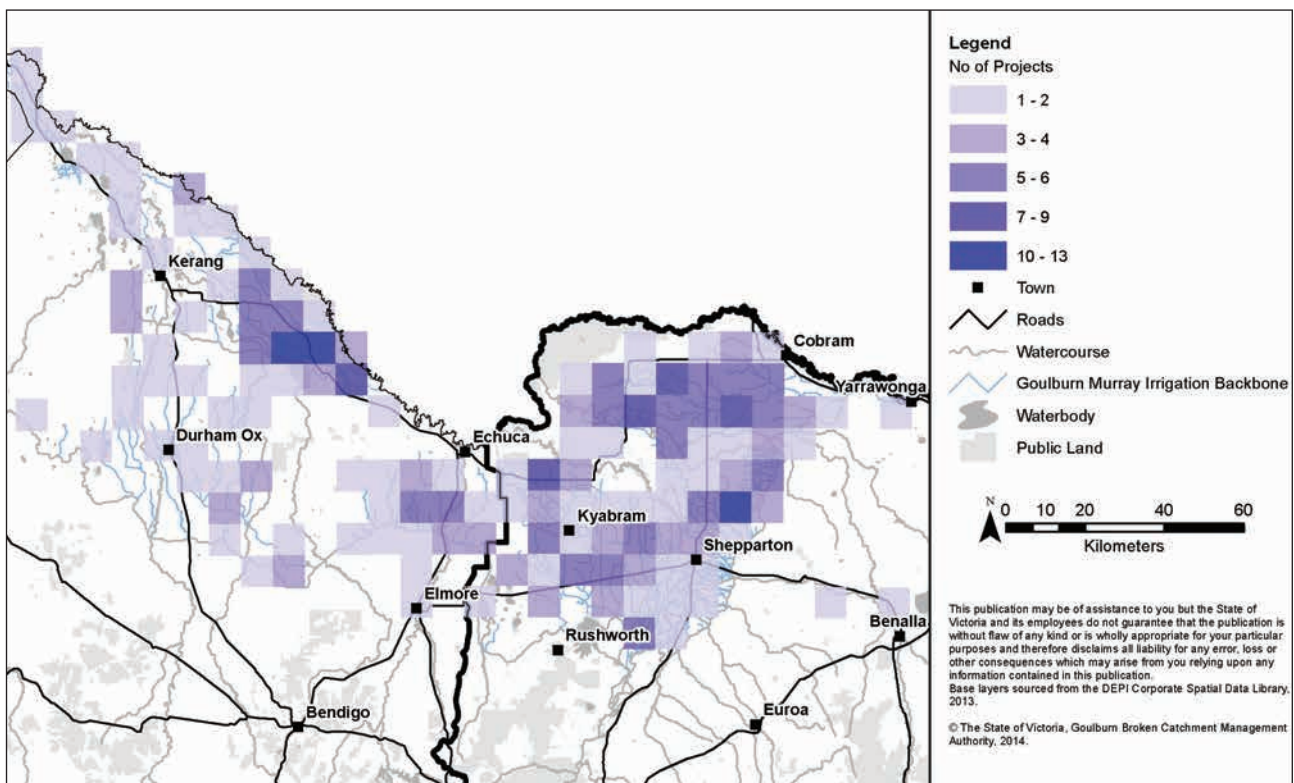
Environmental site assessments completed across the Goulburn Murray Irrigation District for the Goulburn Murray Water Connections Project comprised:

- 800 assessments on meters
- 87 assessments on channel regulators

- 177 connections' business cases, including 645 individual assessments (channel decommissioning, culverts, road crossings, subways, meters, regulators).

## Farm Water Program Projects

1 July 2013 to 30 June 2014



## Actions 2011-12, 2012-13 and 2013-14

Action <sup>i</sup>		From funds received through Corporate Plan <sup>ii</sup>				
		Achieved			Target <sup>ii</sup>	% achieved
		2011-12	2012-13	2013-14		
<b>Surface water action<sup>iii</sup></b>						
Land forming/laser grading <sup>iv</sup>	ha	23,500	12,662	6,671	4,262	157
Drain – primary built <sup>v</sup>	km	2	1	0	0	
Drain – community built	km	1.0	0.0	0	0	
Farm reuse systems installed <sup>vi</sup>	no.	22	25	64	32	200
Drain – additional water diverted from regional drains <sup>vii</sup>	ML	0	0	0	0	
Automatic irrigation systems <sup>viii</sup>	ha	1,109	2,529	0	0	
Pipe and riser irrigation	ha	816	1,725	3,382	1,911	177
Irrigation scheduling systems	ha	157	227	154	156	99
Plastic lined channels	km	0	1.23	0	0	
Farm channel upgrade	km	6.1	0	0	0	
Pressurised irrigation systems	ha	0	200	838	519	161
Irrigation systems – improved <sup>ix</sup>	ha	24,000		7,330	6,449	114
<b>Sub-surface water action</b>						
New groundwater pumps – public installed	no.	0	0	0	0	
New groundwater pumps – private installed	no.	1	0	0	0	
Increased volume of water able to be pumped	ML	75	0	0	0	
<b>Planning for works action</b>						
Whole farm plans	no.	223	170	79	146	54
Whole farm plans - new (counted in "no." above)	ha		8,424	4,224		
Whole farm plans - modernised (counted in "no." above)	ha		9,075	4,403		

- <sup>i</sup> Many actions primarily aimed at achieving salinity targets contribute to other targets, such as those for water quality and biodiversity.
- <sup>ii</sup> Corporate Plan targets are adjusted as funding is confirmed. Figures do not include the part of the Farm Water Program that is outside the Shepparton Irrigation Region. 2013-14 targets have been calculated using 50% contracted areas of entire Round 2 of Farm Water Program.
- <sup>iii</sup> 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.
- <sup>iv</sup> Assumptions: 2011-12 = 90 per cent of area under Whole Farm Plans (25,841) + 70 per cent of Farm Water Program onground achievements (965; 1,783 was used to calculate figures in 2011-12 report); 2012-13 = Farm Water Program onground achievements (2,163) + 60 per cent of area put under Whole Farm Plans [new (8,424) + modernised (9,075)]; 2013-14 = Farm Water Program's SIR onground achievements (3,736) + 60 per cent of area put under Whole Farm Plans [new (4,224) + modernised (4,403) - Farm Water Program's SIR onground achievements (3,736)].
- <sup>v</sup> 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.
- <sup>vi</sup> Reuse dams allow for the collection and re-irrigation of high nutrient run-off, reducing the water and nutrient loads leaving the farm. Figures include Farm Water Program installations.
- <sup>vii</sup> High flow diversion. None completed because of no demand and previous dry conditions.
- <sup>viii</sup> No longer a requirement to record. Trend is towards all systems being automated (becoming a minimum standard).
- <sup>ix</sup> Assumptions: 2013-14 = Farm Water Program's SIR onground achievements (laser grading + overhead spray + drip; 3,736 + 567 + 0) + 70 per cent of area put under Whole Farm Plans [new (4,224) + modernised (4,403) less Farm Water Program's SIR onground achievements]. This assumption is being reviewed: the assumed achievement above is likely to be the right order of magnitude, but is likely to be adjusted significantly. Achievements for previous years are also being reviewed.

## What's next?

The operational priority is to continue integrating farm and catchment programs with irrigation modernisation, the Farm Water Program and industry needs. This requires working with partner agencies so that the salinity management objectives are also met as works proceed. The alignment and integration of all industry partners is critical at this time to ensure the maximum return from various investments into our region. This alignment and integration is the Goulburn Broken CMA's most critical role from the Sustainable Irrigation Program perspective.

The three-year Shepparton Irrigation Region Salt and Water Balance Project is now at the stage where it will be adapting management of shallow watertables and, subject to funding, developing a different method of defining trigger levels for planning, management via new works or operation, or no action if shallow watertables decline again. The project includes the connection between irrigation, high watertables and salinity levels and implications for strategies. It also includes an online communication portal

that will allow landholders to firstly identify their property and then address their own salinity risk based on their farm context.

The Shepparton Irrigation Region Land and Water Management Plan is being reviewed under the roll-out of the new RCS, with it filling dual roles as the 'Local Plan' as well as the statutory Land and Water Management Plan. The new plan will incorporate adoption of the 'resilience approach' for the Agricultural Floodplain social-ecological system. This statutory document is critical for integration of the multi-strategy approach within this social-ecological system. It is also critical to meet the requirements of the Commonwealth-driven Murray-Darling Basin Plan.

The focus for the second year of the Beyond Soilcare Project in the Agricultural Floodplains will be on improving soil condition. This focus has been driven by lessons from the first year of the project, including those from a soils research forum. The partnership between the Goulburn Broken CMA, DEPI and the Goulburn Murray Landcare

Network will continue to be critical in delivering activities across the region. Murray Dairy's Soils Focus Farm Project will also be rolled out. Demonstration trials will be developed with local landholders.

The impact of Murray-Darling Basin Plan implementation on the irrigation industry and the flexible or adaptive response to changing water availability for productive agricultural use will be a focus of the program. Input into the delivery of environmental water for wetlands will continue to be a key knowledge-sharing role.

The communication of regional requirements as identified by the community and supporting agencies will again be a priority, so that investment can be renewed, regardless of fund source. The requirements of the on-farm modernisation, surface and sub-surface drainage and integrated planning through Whole Farms Plans are all critical aspects that appear to be suffering from reducing future investment.

There will be an emphasis on engaging the community as part of rolling out the renewed Land Water Management Plan, which will be finalised in early in 2014-15.

The SIR Groundwater Management Plan will also be in the final stages of renewal in 2014-15, which will set the direction of more flexible management of shallow watertables, reflecting what is required rather than the more regulatory practices of the past.

The Goulburn Broken CMA will participate in the GMW drainage tariff review to ensure alignment between the various charges of GMW and the delivery of the broader region's priorities. Active participation by all partners should minimise the potential for adverse outcomes.

## Case study

### Farm Water Program

At a glance:

**Who:** Jarrod, Graham and Robyn Lukies

**Where:** Lanivet Farms, Katamatite.

**Project area:** 88 hectares on a 250 hectares outblock

**What:** Installed universal traveler sprinkler system, supply channel and dam

**Water Service Area:** Murray Valley

**Total water savings:** 212 megalitres, half transferred to the Government for environmental purposes

Katamatite grain grower Jarrod Lukies says that without Farm Water Program funding, a difficult to irrigate outblock bought in 2009 would have been under-utilised.

'It had lots of small bays and contour banks - it was just not worth irrigating - it would have taken days,' he said. 'We were using it as dry land, getting one crop a year.'

Irrigation designer Doug Walker alerted them to funding from the Victorian On-Farm State Priority Project that had become available through the Farm Water Program.

Jarrod said they had considered flood irrigation improvements, but instead decided to install a sprinkler system.

'The lasering work that would have been needed would have been quite expensive - the property is quite flat,' he said. 'In the meantime we had been looking into sprinklers and had done a lot of research on them. We really liked that (with sprinklers) you could control the amount of water to suit your crop.'

The Lukies decided to install a Valley Universal Linear System from Cobram Irrigation. The sprinkler is a combination of linear traveller and a pivot. Its 310 metre span travels in a straight line along one side of a 1.25 kilometre supply channel. Once it reaches the end of the channel, the span pivots to irrigate land on the other side of the channel as it travels back.

The sprinklers have been set up to deliver 16 millimetres in 24 hours over the entire 88 hectare site. A computerised 'dashboard' allows the Lukies to adjust the amount of water quickly and easily to optimise the crop's growth patterns.

Jarrod says the first crop under the new system, barley, yielded quite well although it was affected by a late frost.

'We were hoping for about 7 tonnes/hectare, well up on the 4 tonnes/hectare we'd got growing it as a dryland crop, but the frost brought the yield back to just under 6 tonnes/hectare,' he said.

The automated system is easy to operate - Jarrod is kept informed of the sprinkler's progress, rate and any problems via SMS.

'The ease, the speed, the fact that I can start the machine and have 88 hectares irrigated in 24 hours without really having to be there are all benefits, but the real advantage is that unlike flood irrigation, you have complete control over the amount of water you use and when.'

'We're really glad we've done this - we would never have done it without the (Farm Water) program.'

## Investment area 2 - River and wetland health and floodplain management

### Investment areas: 2a Environmental flows, 2b Riparian and instream habitat and channel form and 2c Water quality (nutrients) in rivers.

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

#### Annual performance

Decision focus <sup>i</sup>	Examples of evidence used to inform decisions	2014	Certainty of rating
2a Environmental flows	Outputs (against targets set as a result of funds received)	On target	High
2b Riparian and instream habitat and channel form	Outputs (against targets set as a result of funds received)	On target	High
2c Water quality (nutrients) in rivers	Outputs (against targets set as a result of funds received)	On target	High

i. See Appendix 1 for notes on the analytical framework (page 130), including an explanation of the decision focus and ratings.

ii. Ratings for 1990 have been determined using our understanding in 2014 of the situation in 1990

#### Government investment<sup>i</sup>, \$000

2011-12	2012-13	2013-14	2014-15 <sup>ii</sup>
5,430	4,606	6,083	3,421

i. Includes all three investment areas under River and wetland health (2a Environmental flows, 2b River and instream habitat and channel form and 2c Water quality (nutrients) in rivers).

ii. Forecast based on funding advice at July 2014.

#### Major strategic references

- Ramsar Convention on wetlands 1971
- Japan Australia Migratory Bird Agreement 1974
- China Australia Migratory Bird Agreement 1986
- Republic of Korea Australia Migratory Bird Agreement 2009
- Convention of Migratory Species (Bonn Convention) 1979
- Murray-Darling Native Fish Management Strategy (MDBA 2004)
- *Water Act 2007*
- *Water Amendment Act 2008*
- *Australian Heritage Commission Act 1975*
- *Aboriginal and Torres Strait Islander Heritage Protection Act 1984*
- *Native Title Act 1993*
- *Environment Protection and Biodiversity Conservation Act 1999*
- The Murray-Darling Basin Plan (MDBA 2012)
- [www.thelivingmurray.gov.au](http://www.thelivingmurray.gov.au)
- The Barmah-Millewa Environmental Management Plan (Murray-Darling Basin Authority 2005)
- Victorian Waterway Management Strategy (DEPI 2013)
- Victorian River Health Strategy (DNRE 2002)
- The Northern Region Sustainable Water Strategy 2009
- Threatened Species Recovery Plans
- *Planning and Environment Act 1987*
- *Subdivision Act 1988*
- *Mineral Resources (Sustainable Development) Act 1990*
- Building Regulations 1996
- *Water Act 1989 (Victorian)*
- *Flora and Fauna Guarantee Act 1988*
- *Catchment and Land Protection Act 1994*
- *Aboriginal Heritage Act 2006*
- Advisory lists of rare and threatened species in Victoria (Department of Environment and Primary Industries)
- The State Environment Protection Policy (Waters of Victoria) 2003
- Goulburn Broken Regional Catchment Strategy (GB CMA 2013)
- Goulburn Broken Regional River Health Strategy 2005, Addendum (GB CMA 2010)
- Yorta Yorta Nation Whole of Country Plan 2012-2017
- Draft Wetlands Strategy for the Goulburn Broken Catchment (GB CMA 2003)
- Goulburn Broken Water Quality Strategy 1996-2016 (GB CMA 1996)
- Goulburn Broken Regional Floodplain Management Strategy 2002 (GB CMA 2002)
- Review of Goulburn Broken Water Quality Strategy 1996-2016 (Brian Garrett and Associates 2001)
- Goulburn Broken Waterway Strategy 2014-2022 (GB CMA 2014)



## Background

Three highly connected investment areas are reported in this section: 2a Environmental flows, 2b Riparian and instream habitat and channel form and 2c Water quality (nutrients) in rivers.

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.

River health and floodplain management in Victoria is the responsibility of catchment management authorities and Melbourne Water, as described in Part 10 of the Water Act, 1989. Catchment management authorities are considered to be the "caretakers of river health".

### Riparian and instream habitat and channel form

Land that adjoins regularly influences, or is influenced by a creek or river, is considered riparian. Riparian vegetation is vitally important to the health of waterways as it:

- provides organic matter, a major food source for instream plants and animals
- provides essential instream habitat for many fish and invertebrates in the form of woody debris and roots
- provides stability to banks, minimising erosion
- provides shade, which protects instream plants and animals from temperature extremes and can also control the growth of nuisance aquatic plants, including blue-green algae
- traps and filters sediments and nutrients from catchment run-off, helping to protect and improve water quality.

Riparian vegetation is also an important part of the terrestrial landscape. It acts as a refuge in dry times, is often the largest remnant of native vegetation in cleared catchments and acts as a wildlife corridor linking habitats. The capacity of riparian vegetation to perform the ecological functions outlined above will depend on its width, connectivity and condition.

### Catchment condition<sup>i</sup>

Investment area	Examples of evidence of Catchment condition used to inform decisions	1990 <sup>ii</sup>	Certainty of rating	2014	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 waterways	Phosphorus loads in rivers and streams Blue green algal blooms Management systems	Very Poor	Low	Satisfactory	High	↑

<sup>i</sup> See Appendix 1 for notes on the analytical framework (page 130), including an explanation of the decision focus and ratings.

<sup>ii</sup> 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.

<sup>iii</sup> Ratings for 1990 have been determined using our understanding in 2014 of the situation in 1990.

The Goulburn Broken CMA, in conjunction with individuals, communities and agencies, undertake natural resource and community-based activities. Activities include fencing, revegetation, pest plant and animal control, resnagging and monitoring to protect and improve the condition of riparian zones, instream habitat and channel-form across the catchment. These works are complemented by environmental water and floodplain management and activities delivered through the Sustainable Irrigation and Land and Biodiversity programs.

### Environmental flows

Environmental entitlements can be called out of storage when needed and delivered to streams or wetlands to protect or enhance their environmental values and health. Environmental entitlements are held by the Victorian Environmental Water Holder, the Commonwealth Environmental Water Holder, and the Murray-Darling Basin Authority. Catchment management authorities are responsible for determining environmental water requirements of streams and wetlands, developing and submitting seasonal watering proposals to the Victorian Environmental Water Holder for consideration, and managing the delivery of environmental water in accordance with the Victorian Environmental Water Holder's Seasonal Watering Plan. Seasonal watering proposals are prepared for rivers and wetlands. The purpose of the proposals are to:

- identify the environmental water requirements of the streams and wetlands in the coming year under a range of climatic scenarios to protect and improve their environmental values,
- inform the development of environmental water priorities in the Victorian Environmental Water Holder's seasonal watering plan.

Where possible, the Victorian Environmental Water Holder, the Commonwealth Environmental Water Holder and the Murray-Darling Basin Authority seek to coordinate delivery and management of environmental water with managers such as Goulburn-Murray Water to maximise ecological benefits.

### Water quality (nutrients) in rivers

Elevated nutrients was identified as a high priority issue for water quality in the Goulburn Broken Catchment because of its potential to contribute to excessive algal growth that can impact on social, economic and environmental values within waterways. Phosphorus loads are an indicator for water quality in rivers and streams because phosphorus is a limiting factor in the development of toxic blue-green algal blooms and aquatic-weed blooms.



The condition of riparian and in stream habitat and channel form has been impacted by past and present clearing, groundwater extraction, pest plant and animal invasion, the removal of woody debris, stock access to riparian zones, waterway regulation and flow diversion and urban and agricultural development.

Since 2000, condition has also been impacted by prolonged drought, fires and floods. During this time riparian and instream habitat and channel-form management has been supported by improved:

- private landholder, government and agency partnership arrangements
- onground management approaches informed by research and monitoring
- administrative, institutional and legislative arrangements, including the establishment of the environmental water reserve
- community appreciation and support of waterways values.

River and wetland condition in Victoria is assessed using the Index of Stream Condition and the Index of Wetland Condition. These measures assess factors including changes in hydrology, water quality, form, vegetation health, and species diversity.

Recent Index of Stream Condition assessments (2010) of selected river reaches in the Goulburn and Broken basins indicated that most reaches are in moderate (53 per cent) and poor (21 per cent) condition, with a small proportion of reaches in very poor condition (11 per cent). About 10 per cent of reaches were assessed to be in good condition and 5 per cent in excellent condition. The overall condition of reaches has not significantly changed since they were last assessed in 2004 despite the impacts of fire, flood and drought.

Since 2009 Index of Wetland Condition assessments have been carried out on 116 wetlands across the region. Results indicate that most are in good (38 per cent) and moderate (40 per cent) condition, and a small proportion are in excellent (6 per cent), poor (15 per cent) and very poor condition (less than 2 per cent). The results also indicate that wetlands on public land are generally in better condition than those on private land.

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.

## Long-term strategy implementation

Investment area	Strategy Life	2014	Certainty of rating	Trend <sup>i</sup>
Environmental flows	2004-present	On target <sup>ii</sup>	Medium	↑
Riparian and in stream habitat and channel form	2005-2015	Below target <sup>iii</sup>	High	●
Water quality (nutrients) in waterways	1996-2016	Exceeding target <sup>iv</sup>	High	●

See Appendix 1 for notes on the analytical framework (page 130), including an explanation of the decision focus and ratings.

- i Assumed to parallel government funding trend.
- ii Outputs (scheduled between 2004 and 2014).
- iii Outputs (tasks and works scheduled between 2005 and 2014).
- iv Outputs (tasks and works scheduled between 1996 and 2014).

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

In 2009-10, the Goulburn Broken CMA developed an addendum to the Goulburn Broken Regional River Health Strategy. This addendum reviewed achievements since 2004 and the vision was retained. The addendum guided river health programs, funding and implementation between 2010 and 2013. The development of a second generation Goulburn Broken Waterway Strategy began in 2012 and was completed in 2014. The strategy has close links with the 2013-19 Regional Catchment Strategy and will guide waterway and wetland programs, funding and implementation from 2014 to 2022.

The 2013 review of the Goulburn Broken Regional River Health Strategy and addendum indicated that a substantial program of works and complementary initiatives have been implemented across the Catchment. The Catchment has experienced fires, floods and drought during the life of the strategy and the addendum. The program has responded by securing funding and implementing recovery programs and initiatives. As a result, the Goulburn Broken CMA now has robust processes for assessing the impacts and responding to the effects of these natural events and other water related emergencies such as black water events.

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.

## Environmental water use since 2000-01

Wetland or stream	Volume, 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	2012-13	2013-14
Barmah Forest <sup>i</sup>	165,000		3,165			256,500		0	300	1,850	184,500	184,500	2,959	195,386
Barmah Fores <sup>i</sup>	176,000		-			256,600		125	-	520	243,500	243,500		167,700
Black Swamp								90	40	80				50
Brays Swamp	260		220		266									
Lower Broken Creek						Goulburn River Water Quality Allowance deployed						10,366	41,230	38,593
Upper Broken Creek													51	
Broken River											24.2			
Doctors Swamp										40 (trial)				
Goulburn River											26,670	195,110	255,427	312,349
Kinnaids Swamp								426		400				179
Moodies Swamp								50						121
Reedy Swamp								544	500	300				
<b>TOTAL</b>	<b>341,260</b>	<b>-</b>	<b>3,385</b>	<b>-</b>	<b>266</b>	<b>513,000</b>	<b>-</b>	<b>1,235</b>	<b>840</b>	<b>3,190</b>	<b>454,694</b>	<b>633,476</b>	<b>299,667</b>	<b>714,378</b>

i Volumes used since 2000-01 were reconciled in 2014 and some figures were adjusted.

In recent years, the Goulburn Broken CMA has delivered environmental entitlements to the Goulburn River, lower Broken Creek, upper Broken Creek, 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 Commonwealth Government's On-farm Irrigation Efficiency Program and the GMW Connections Project.

The Goulburn Broken CMA, in partnership with landholders and partners, continue to undertake natural resource and community-based activities, including fencing, revegetation, pest plant and animal control and monitoring to protect and improve the condition of riparian zones, instream habitat and channel-form across the Catchment. To date, over 1,000 kilometres of fencing has been erected, approximately 24,000 hectares of weeds have been treated along waterways and 312 kilometres of waterways have been opened to fish passage. More recently, the Goulburn Broken CMA has focused on re-snagging waterways to improve in stream habitat diversity. Approximately 2,020 instream woody habitat have been added to a number of priority waterways across the Catchment including the Goulburn River, Broken Creek, Hollands Creek and Tahbilk Lagoon.

Water quality issues identified in the Goulburn Broken Regional Water Quality Strategy (GB CMA 1996) focused on the impacts of nutrients and their potential to cause toxic algal blooms. The Goulburn Broken Catchment community's goal for water quality 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 reference points for progress towards this goal. 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. A review of the strategy was completed in 2008, highlighting a range of successes under the individual programs, including major improvements in wastewater treatment, irrigation reuse, dryland natural resource management programs, and protection of riparian lands. Strategy development, implementation and review processes are closely aligned with best practices identified in the National Water Quality Management Strategy (ARMCANZ and ANZECC 1992).

## 2013-14 performance

### Community engagement

The development of the Goulburn Broken Waterway Strategy was supported by a reference group comprised of community members and representatives from partner agencies such as Department of Environment and Primary Industries and Goulburn-Murray Water. A WeConnect site was also run to seek feedback on the development of the strategy.

A weed identification day involved 40 participants, who learned how to identify aquatic weeds and their potential impacts on waterways. This was part of the Australian Government-funded project, 'Protecting the ecological character of Barmah Forest'.

The Goulburn Broken Wetland Management Group continued to meet and guide wetland works and actions including environmental water use.

The Goulburn and Broken Environmental Water Advisory Groups continued to meet and guide environmental water-use planning.

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) and extensive media relating to waterbird breeding and water quality management.

The fourth Floodplain Ecology Course was successfully held at Barmah during October. Funded by the Goulburn Broken CMA, Department of Environment and Primary Industries and participant fees, the event was managed by the Goulburn Murray Landcare Network.

The successful RiverConnect initiative, which promotes the Goulburn and Broken rivers as the heart and soul of the Shepparton-Mooroopna community, continued to be supported. Key achievements included the installation of historical flood markers, the completion of a guided 'Flats Walk' between Mooroopna and Shepparton launch extensive community activities through the 'Activities in the Park' program, and over 500 local school students participating in river protection and improvement works.

Waterwatch celebrated its 20th anniversary and continued to be a highly successful community education program. Its activities were integrated into River Health and Wetland program activities, including fire response and stream restoration works.

Goulburn Broken CMA staff presented to a variety of interest and community groups on river and wetland management, including the University of the Third Age (U3A).

An iSpy Fish mobile application was developed. The iSPY Fish application builds upon the highly successful iSPY Frog application launched in 2012. The iSPY Fish application includes colour images and physical descriptions of 21 native and eight alien fish species. The application allows users to upload photos and catch detail (species, weight, location, etc.) to an iSpy Fish Facebook page, where data is collated to assist river and wetland management.

Landholders, the Goulburn Broken CMA and partners involved in the Hollands Creek demonstration reach project participated in a MDBA video promoting the success of the demonstration reach concept.

The Goulburn Broken CMA produced a brochure for landholders on wetland revegetation and the benefits of protecting wetlands.

Five short films have been produced as part of the Farm Wetland and Woodland Project funded by the Goulburn Broken CMA. Landholders in the films discuss the benefits of the works completed on their properties.

The Goulburn Broken CMA produced a number of informative YouTube videos, including videos on Moira Grass growth in Barmah Forest, Cormorant breeding in Barmah Forest and the impact of the February 2014 bushfires on Kinnairds Swamp.

## Planning and responding

### Strategic

The development of a second generation Goulburn Broken Waterway Strategy began in 2012 and was completed in 2014. Key changes to the new Strategy include:

- incorporation of wetlands
- priority streams and wetlands and associated strategic works and activities are being presented on a social-ecological system basis
- resilience thinking is applied
- updated stream and wetland condition data is used

- new roles and responsibilities of NRM agencies are identified, such as establishment of the Victorian and Commonwealth Environmental Water Holders to manage environmental water
- incorporation of lessons learnt from the drought and recent fires and floods.

### Water quality (nutrients) in rivers

The Water Quality Forum undertook a strategic review of priority water quality issues within the region, with the aim of developing a works program for the Forum 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.

WaterWatch continued to monitor the Honeysuckle Creek and other streams impacted by fire in early 2013 to identify any resultant blackwater and low dissolved oxygen water quality issues.

A review of the stream water temperatures in the mid Goulburn catchment was undertaken to assess their potential impacts on habitat requirements of Macquarie perch. The findings of the investigation will help inform the development of management objectives for these streams.

Kinnairds Swamp and Black Swamp were burnt by fire in February 2014. Environmental water was delivered to the wetlands in autumn 2014 to aid their recovery and real-time water quality monitoring stations were established at the sites to assess any potential water quality issues.

### Environmental flows

A management plan for Kinnairds Swamp was prepared on behalf of the Moira Shire to assist land managers with managing the ecological and hydrological requirements of the wetland.

Environmental water management plans were completed for Kanyapella Basin, Mansfield Swamp, Wallenjoe Swamp, Gaynor Swamp and Moodies Swamp. The plans establish hydrological and ecological objectives and will guide environmental water management at these wetlands.

Seasonal watering proposals were prepared for the Broken Creek, Broken River, Goulburn River, Barmah Forest and priority wetlands in the region in consultation with key stakeholders and partners. Seasonal watering proposals identify the environmental water requirements of a stream or wetland in the coming year under a range of climatic scenarios to protect or improve its environmental values and health. The proposals inform the development of environmental water priorities in the VEWH's seasonal watering plan.

A flow study of the mid Goulburn River (from Lake Eildon to the Goulburn Weir) commenced in February 2014. The flow study will develop a set of environmental objectives for the management of water-dependent values and flow recommendations aimed at meeting the environmental objectives. The flow study is expected to be completed by December 2014 and will guide environmental water management in the river.

An investigation of the fluvial geomorphology of the Yea and Acheron Rivers was completed. The aim of the study was to understand the underlying physical processes that control the size, shape and location of the river channels. This information will inform future river management strategies and day-to-day river management decisions.

The detailed design of structural works to facilitate the delivery of environmental water to Gaynor Swamp was completed in consultation with GMW, Parks Victoria, Field and Game and the local community. Draft operational guidelines for the proposed structures and a business case to support funding proposals have also been completed.

Works to improve the delivery and management of environmental water at Kinnairds Swamp have been completed by GMW and include new regulating structures and upgrades to existing regulating structures. They were successfully used to deliver environmental water to Kinnairds Swamp in autumn 2014.

A study investigating the most efficient and effective way to deliver environmental water to Carlands Swamp (a private wetland on the lower Broken Creek) was completed by GMW on behalf of the Goulburn Broken CMA. The Goulburn Broken CMA will now work with the landholder to identify opportunities to deliver environmental water to the wetland.

## Monitoring

Monitoring of threatened species continued and included:

- monitoring of the condition of native fish communities in the mid Goulburn River, and
- threatened species recovery monitoring (Macquarie Perch in Holland, King Parrot and Hughes Creeks).

This was the final year of monitoring the impact of decommissioning Lake Mokoan on the ecology of the Broken River. The project found that decommissioning has had a positive impact on the Broken River's hydrology, water quality and native fish community.

Changes in native fish populations in response to resnagging work on the Broken Creek were assessed.

Cabomba populations in Lake Benalla, Broken Creek, Broken River and Barmah Forest were assessed.

Input was provided into a Commonwealth Environmental Water Office program that monitored short-term environmental outcomes from the deployment of Commonwealth Environmental Water in the lower Goulburn River and lower Broken Creek. This was the final year of a two-year program that focused on native fish, macroinvertebrates and vegetation responses.

Input was provided into the design of a Commonwealth Environmental Water Office program to monitor long-term environmental outcomes from the deployment of Commonwealth Environmental Water in the lower Goulburn River from 2014-2019. Monitoring will focus on native fish, macroinvertebrates, vegetation, geomorphology and ecosystem metabolism responses. The program builds on the Commonwealth Environmental Water Office short-term program monitoring.

Input was provided into the Victorian Environmental Flow Monitoring and Assessment Program, undertaken across Victoria on eight priority waterways, including sites on the Broken and Goulburn Rivers and the Broken Creek. Monitoring in 2013-14 focused on fish and macroinvertebrates.

Vegetation, macroinvertebrate, water quality, waterbird and frog responses to environmental water were assessed at Reedy Swamp, Moodies Swamp, Black Swamp and Kinnairds Swamp. The project was funded by the VEWH.

## Works and operations

### River and wetland health Actions 2011-12, 2012-13 and 2013-14

Action		From funds received through Corporate Plan				
		Achieved <sup>i</sup>			Target	% achieved
		2011-12	2012-13	2013-14		
<b>Stock grazing action</b>						
Fence wetland remnant	ha	8	0	128	88	145
Fence stream/river remnant <sup>ii</sup>	ha	337	126	87	0	-
Fence stream/river remnant	km	36	7	14	19	71
Off-stream watering	no.	30	1	3	2	150
<b>Nutrient-rich and turbid water &amp; suspended solids action</b>						
Stormwater management projects <sup>iii</sup>	no.	1	0	0	0	
<b>In stream &amp; near-stream erosion action</b>						
Bank protection actions	km	8	0.65	0.20	0.00	-
Instream & tributary erosion controlled	km	0	0	1.00	0.95	105
<b>Changed flow-pattern action</b>						
Water allocated <sup>iv</sup> eg wetlands, waterways	ML	633,476	299,667	714,378	0	-
<b>Weed invasion action</b>						
Weeds – aquatic weeds controlled (managed)	ha	47	77	2.5	0	-
<b>Habitat loss management</b>						
Rock ramp fishway	no.	0	0	2	2	100
Fish barrier removal	no.	1	0	0	0	-
Establish Significantly Enhanced Aquatic Refugia	no.	25	0	15	15	100
<b>Surface Water action<sup>v</sup></b>						
Drain - primary <sup>vi</sup>	km	2	1	0	0	
Drain - community	km	1.0	0	0	0	
Farm reuse system <sup>vii</sup>	no.	22	25	64	32	200
Drain - divert water	ML	0	0	0	0	
Irrigation systems - improved <sup>viii</sup>	ha	24,000		7,330	6,449	114

- i Achievements include those from investment areas: Environmental flows, Riparian and instream habitat and channel form and Water quality and complementary investment areas (SIR salinity, Land health including dryland salinity and Biodiversity). Outputs delivered through each fund source are available from the Goulburn Broken CMA.
- ii Area figure supplied by River health implementation manager.
- iii Stormwater management projects are undertaken on a one-to-one funding basis with local government.
- iv Target cannot be set with any confidence because achievement is prone to extreme variation, being affected by climatic and seasonal conditions. Volumes used since 2000-01 were reconciled in 2014 and some figures were adjusted. The NSW component of water delivered to Barmah Forest is included in these figures.
- v Surface water management enables the removal of excess rainfall run-off from irrigated lands, alleviating soil salinity. Nutrient loads collected by the drains are managed through drainage reuse and management plans and monitored against the resource condition target.
- vi Fencing and laneways are relocated along primary drains to control stock. Drains are also hydro-mulched and seeded to provide vegetative cover on bare batters.
- vii Reuse dams allow for the collection and re-irrigation of high nutrient run-off, reducing the water and nutrient loads leaving the farm.
- viii Assumptions: 2013-14 = Farm Water Program's SIR onground achievements (laser grading + overhead spray + drip; 3,736 + 567 + 0) + 70 per cent of area put under Whole Farm Plans [new (4,224) + modernised (4,403) less Farm Water Program's SIR onground achievements]. This assumption is being reviewed: the assumed achievement above is likely to be the right order of magnitude, but is likely to be adjusted significantly. Achievements for previous years are also being reviewed.

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, improving instream woody habitat, monitoring and employment.

Works were funded through a range of programs, including the Onground Works Program, the Healthy Waterways Initiative, and Recreational Fishing Grants Program.

In June 2013, the Victorian Government announced funding for the Goulburn Broken CMA to deliver the Fruit Industry Employment Program for workers affected by SPC-Ardmona's fruit intake cuts. The program commenced in August 2013, with participants carrying out fencing, weed control and infrastructure work such as signage, repairs and nest-box construction.

Work to control the aquatic weed Cabomba (Cabomba caroliniana) continued along the Broken River and Broken Creek systems with funding from the Australian

Government. The program has achieved relative success with little Cabomba now present within these systems. Work this year focused on the eradication of a small population within an impoundment on the Broken River (Casey's Weir).

The Goulburn Broken CMA, Yorta Yorta Nations Aboriginal Corporation and Parks Victoria continued work in partnership on a project to address 'Weeds of National Significance' and pest animals in the Barmah Forest to protect the ecological character of this icon site. Targets for pest plant and animal management were met or exceeded in the Australian Government funded program.

A rock ramp fishway was constructed to address a major fish barrier at Emu Bridge on the Hollands Creek. This will allow passage for fish, including the endangered Macquarie perch, through approximately 20 kilometres of waterway upstream of the structure. A private crossing on the Broken River was also modified to allow fish passage through an additional 20 kilometres of the river.

A feasibility study was completed for modifying the Broken River Weir (Lake Mokoan offtake) to allow fish passage on the Broken River upstream of Benalla. A detailed design was prepared for modifying the Rupertsdale fish barrier (vehicle crossing) to allow fish passage on the Broken River downstream of Benalla. Funding for these projects was provided by the DEPI's Recreational Fishing Initiative.

A large-scale woody weed control program was undertaken on the Yea River near the township of Yea. This project was implemented as a result of a community survey that identified woody weeds as a priority for members of the Yea community.

Large-scale instream habitat works were undertaken along the Broken Creek in line with recommendations from Arthur Rylah Institute. This project has been funded by revenue raised through recreational fishing licences allocated through DEPI's Recreational Fishing Grants Program.

Activities to help with implementing the four-year onground works program include social surveys in the Yea River area

and electrofishing in the King Parrot Creek, Yea River and mid Goulburn River to help assess fish populations, with a focus on Macquarie perch. In King Parrot Creek, 119 Macquarie perch were caught in the assessments sites: the most since surveys commenced in 2006.

The main road crossing at Tahbilk Lagoon was upgraded to facilitate native fish passage, the last part of a Tahbilk Lagoon project that involved a variety of onground works and research aimed at improving aquatic habitat.

In February 2014, fires burnt approximately 13,000 hectares in the Goulburn Broken Catchment, impacting a number of streams and wetlands north of Shepparton and around Kilmore. The Goulburn Broken CMA received fire recovery funds from the state government to replace affected fences and off-stream stock watering points. More than 7.61 kilometres of fences had been replaced by June 2014. Fire recovery works are expected to continue into next year.

### Environmental water used during 2013-14

Quantity, ML	Timing	Source
<b>Water used WITHIN the Goulburn Broken Catchment</b>		
Goulburn River		
215,000	July 2013 to May 2014	Commonwealth Environmental Water
33,349	May 2014 to June 2014	Victorian Environmental Water
Lower Broken Creek		
9,388	August 2013 to May 2014	Commonwealth Environmental Water – Goulburn River System
29,204	September 2013 to May 2014	Commonwealth Environmental Water – Murray River System
Moodies Swamp (Upper Broken Creek)		
121	May 2014	Commonwealth Environmental Water
Barmah-Millewa Forest <sup>i</sup>		
64,200	November 2013 to January 2014	Barmah-Millewa Forest Entitlement
10,000	November 2013 to January 2014	Victorian Environmental Water
82,700	November 2013 to January 2014	The Living Murray allocation
198,500	November 2013 to January 2014	Commonwealth Environmental Water
7,686	December 2013 to January 2014	Victorian Environmental Water
Black Swamp		
50	May 2014	Victorian Environmental Water
Kinnairds Swamp		
179	May 2014	Victorian Environmental Water
<b>Water used DOWNSTREAM that benefited waterways in the Goulburn Broken Catchment</b>		
Murray River		
112,951	January to March 2014	Inter-Valley Transfers (Goulburn River) <sup>ii</sup>
64,000	October to December 2013	The Living Murray allocation (Goulburn River)
11,974	October 2013 to March 2014	Inter-Valley Transfers (lower Broken Creek) <sup>ii</sup>
3,537	August to October 2013	Murray Unregulated Flows (lower Broken Creek)

i Water delivered to both Barmah Forest in Victoria and Millewa Forest in NSW.

ii Inter-valley transfers are not considered to be environmental water, but can provide environmental benefits. These volumes are not included in total environmental water use figures.

Over 700,000 megalitres of environmental water was delivered in 2013-14 to support fish, macroinvertebrate and vegetation ecological objectives in the lower Goulburn River, lower Broken Creek, Black Swamp, Kinnairds Swamp, Moodies Swamp and Barmah Forest. Significant ecological outcomes in response to environmental flows included Golden perch breeding in the lower Goulburn River and Moira grass growth and flowering in Barmah Forest.

Environmental water was also delivered to Barmah Forest to ensure Egret, Ibis and Cormorant breeding success. The environmental water was delivered in accordance with Victorian Environmental Water Holder processes and with the assistance and cooperation of partners. The majority of priority watering actions were achieved at all sites.



## What's next?

The promotion and implementation of the new Goulburn Broken Waterway Strategy, in partnership with regional agencies and the community, will begin soon. The new Waterway Strategy will be the primary mechanism for implementing statewide waterway and wetland policy and will replace the current regional River Health Strategy. The overarching aim of the Waterway Strategy is to provide a single, regional planning document for whole-of-catchment rivers and wetlands management and an action plan for achieving integrated waterway outcomes.

The Goulburn Broken CMA will continue implementing the Securing Priority Waterways (Onground Works) program. The third year of this four-year program is targeting improvement in the health of a number of priority waterways and associated wetlands, including the King Parrot Creek, Hughes Creek, Yea River, Broken River, Broken Creek and the Goulburn River.

Opportunities for multiple uses of environmental water will be explored with neighbouring catchment management authorities, the Victorian Environmental Water Holder, the Commonwealth Environmental Water Holder and the Murray-Darling Basin Authority.

Seasonal watering proposals and environmental watering plans will continue to be prepared so that environmental water is used effectively and efficiently. The 2014-2015 proposals aim to:

- provide flows in the lower Broken Creek to allow native fish passage, increase native fish habitat during the migration and breeding seasons, and manage threats to native fish from low dissolved oxygen levels and/or excessive Azolla growth
- provide minimum flows and freshes in the lower Goulburn River to support native fish, macroinvertebrates and native vegetation habitat and recruitment

- promote the growth and establishment of Moira Grass and support colonial waterbird breeding in Barmah Forest
- promote the health of native vegetation communities and support waterbird breeding at Black Swamp, Kinnairds Swamp, Moodies Swamp, Reedy Swamp and Doctors Swamp.

The Victorian Environmental Water Holder has provided funds to monitor the ecological response of selected wetlands to environmental water management in 2014-15. Attributes that will be monitored include water depth and quality, invertebrate abundance and diversity, the presence and breeding activity of waterbirds and frogs, and vegetation condition.

Engagement and partnerships with the community to deliver changes will continue. In partnership with the community, past sites will be evaluated to ensure that investment is protected and sites are maintained at best practice.

The likely impacts of climate change on waterway values, in particular water quality, will continue to be investigated. Tipping points for priority waterways will be investigated under climate change scenarios within the six social-ecological systems identified in the Regional Catchment Strategy.

Waterways will continue to be opened up to fish migration with the modification and/or removal of instream barriers. Priority instream barriers to be modified or removed include Gouldings Weir, Rupertsdale Ford crossing and Gowangardie Weir, which are all on the Broken River.

Instream habitat works will be undertaken in priority areas in line with recommendations from Arthur Rylah Institute and through analysis of statewide instream habitat mapping.

## Case study

### Opportunities flow from river study

The findings of a flow study for the Goulburn River downstream of Lake Eildon to Nagambie will help identify opportunities for flows to benefit the river's environmental, social and economic values.

Background material and data, much of it developed for a 2003 Goulburn River flow study, has been reviewed and an advisory group, made up of agency staff and community members, will provide scientific and local knowledge.

The 2014 study recognises that a lot has changed in the past decade, particularly the amount of environmental water available and the demand for irrigation water.

Irrigators have become more efficient in the amount of water they use and have more control of how much and when it's delivered, thanks to programs such as the Goulburn Broken CMA-led Farm Water Program. There may be opportunities to better manage flows for some additional social, economic and environmental outcomes.

For example, as trout, a popular angling species, prefers cold water, environmental flows could be used to boost populations of trout, as well as native species, providing valuable recreational and tourism opportunities for local communities. The impact of flows on the floodplain wetlands that support threatened flora and fauna and existing stretches of river bank vegetation will also be investigated.

Historically the mid-Goulburn River has supported large numbers of Macquarie perch, Trout cod and Murray cod, however, the current status of these native fish in the mid-Goulburn River is unknown.

Findings from a fish study conducted by DEPI's Arthur Rylah Institute in May will also help inform the investigation.

The flow study will be completed in November 2014. For more information, visit [www.gbcma.vic.gov.au](http://www.gbcma.vic.gov.au)

## Investment area 2d - Floodplain management

Compiled by Guy Tierney and Dean Judd

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

Decision focus <sup>i</sup>	Examples of evidence used to inform decisions	1990 <sup>ii</sup>	Certainty of rating	2014	Certainty of rating	Trend
2013-14 performance	Outputs (against targets set as a result of funds received) Corporate Plan KPIs related to flood protection (see page 95)	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	● <sup>iii</sup>
Catchment condition <sup>iv</sup>	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	↑

<sup>i</sup> See Appendix 1 for notes on the analytical framework (page 130), including an explanation of the decision focus and ratings.

<sup>ii</sup> Ratings for 1990 have been determined using our understanding in 2014 of the situation in 1990.

<sup>iii</sup> Assumed to parallel government funding trend.

<sup>iv</sup> 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.

#### Government investment, \$000

2011-12	2012-13	2013-14	2014-15 <sup>i</sup>
496	362	482	452

<sup>i</sup> Forecast based on funding advice at July 2014.

#### Major strategic references

- Goulburn Broken Regional Floodplain Management Strategy 2002-2012
- *Planning and Environment Act 1987*
- *Subdivision Act 1988*,
- *Building Regulations 2005*
- *Water Act 1989*
- *Minerals and Resources (Sustainable Development) Act 1990*
- *Environment Protection Act, 1970*

## Background

Floodplain management functions have been delegated to the Goulburn Broken CMA, which are described under Section 202 of the *Water Act 1989*. A specific function is to provide advice about flooding and controls on development to local councils, the Secretary of the Department of Environment and Primary Industries and the community.

The use of engineering techniques such as hydrology (the study of rainfall and 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.

## Long-term strategy implementation

The Goulburn Broken CMA coordinates implementation of its Regional Floodplain Management Strategy in partnership with agencies and communities. The vision is: 'to achieve best practice floodplain management for the benefit of current and future generations'. This includes the building of community resilience by understanding the nature of flooding through flood studies, planning for floods through emergency response, education and awareness programs, and land use planning.

Two long-term targets have been proposed to provide measurable reference points of progress in achieving the floodplain management vision:

- reduce the impact of flooding on the built environment (and-land use planning to steer inappropriate developments and uses away from flood hazards).
- provide ecosystems with natural flooding patterns where appropriate.

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 Natural Disaster Resilience Grants Scheme. A review of the strategy's nine programs is available at [www.gbcma.vic.gov.au](http://www.gbcma.vic.gov.au)

Most listed tasks for floodplain management 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, Victorian and Australian government grants.

Improving the natural flooding patterns of ecosystems via sensitive floodplain protection planning is a task in progress.

## 2013-14 performance

### Community engagement

The platform used for statutory planning and works on waterways is known as IPAWS which has been redeveloped over the past three years. The Goulburn Broken CMA took a lead in the upgrade that included significant amount of user testing. The updated IPAWS Platform has rolled out to other CMAs.

Community engagement is an integral part of floodplain management and relevant activities are reported under Planning and responding and Works.

### Planning and responding

The table below provides a summary of the studies and implementation plans progressed for 2013-14. All studies are carried out under a partnership approach with local government, state and Commonwealth agencies and local communities. Implementation of the recommendations is a shared responsibility. Civil works such as a town levee system generally rest with local government.

A key initiative in the Mansfield Shire is the commencement of the Planning Scheme Amendment C15 to include and update the flood overlays and zones across many areas of the Shire.

Project name	Lead agency	Status
Barmah Township Flood Mitigation Functional Design	Moira Shire Council	Moira Shire Council adopted report. This report can be used in support of future funding bids.
Seymour Town Levee Implementation Plan	Mitchell Shire Council	Flood impacts of the proposed levee have been assessed. Additional funding to assist with planning scheme amendment was gained.
Numurkah Floodplain Management Study	Moira Shire Council	Consultants have finalised the hydrology report. Hydraulic modelling has been carried out on many flood mitigation options. The cost-benefit analysis for mitigation options are underway, following the completion of a comprehensive floor level survey of homes and businesses.
Murchison Flood Mapping Project	Goulburn Broken CMA	Report and Municipal Flood Emergency Plans have been finalised.
Eildon to Shepparton Flood Mapping Project	Goulburn Broken CMA	Draft mapping prepared for 100-year ARI flood, are under review, and require further work.
Nagambie Flood Study	Goulburn Broken CMA	Hydraulic modelling completed. Final report has been prepared and is being checked by BMT WBM. Final community engagement is required.
Flowerdale Flood Study	Goulburn Broken CMA	Final report completed which will be used to support Murrindindi Planning Scheme Amendment.
Shepparton East Overland Flood Study	Goulburn Broken CMA	Flood mapping prepared for community input, ThinkSpatial commissioned to carry out a survey of the stormwater system.
Shepparton Mooroopna Flood and Intelligence Study	Greater Shepparton City Council	Hydrology and hydraulic report is imminent.
Euroa Post Flood Mapping and Intelligence Project	Shire of Strathbogie	Final report received. Project is nearing completion.
Mansfield Flood Mapping Project	Goulburn Broken CMA	Final mapping and overlays prepared.
Violet Town Flood Mitigation Detailed Design	Strathbogie Shire Council	Advanced
Yarrowonga Overland Flood Study	Moira Shire Council	Advanced
Mitchell Shire Flood Plan	Melbourne Water	Final Draft
Rural flood mapping (Eildon & Nillahcootie catchments)	Goulburn Broken CMA	Hydrology and survey commissioned.
Hydrology of the Acheron catchment	Goulburn Broken CMA	Funding announced July 2014.
Kilmore Flood Mapping and Intelligence Study	Mitchell Shire Council	Funding announced July 2014.
Flood warning improvements for Benalla	Benalla Rural City Council	Funding announced July 2014

An external audit of the floodplain management programs was conducted. Recommendations of the external audit have been implemented.

Revised policy and procedures relating to risk minimisation for the provision of flood advice have been completed.

New procedures have been drafted relating to flood response planning.

Goulburn Broken CMA participated in the simulation by VICSES of implementation of the Regional Flood Emergency Plan at the new Benalla Incident Control Centre.

An interim regional floodplain strategy was developed to assist in prioritising activities for the period 2014-16 while the state strategy is finalised. Funding has been provided for a new regional strategy.

Input into finalisation of FloodSafe Guides was provided for: Seymour, Murchison, Mooroopna-Shepparton, Violet Town, Nathalia, Numurkah, Benalla and Yea.

Input into the Water Law review, which considers the introduction of a Water Bill, was provided.

Input into the development of the new By-law for works on waterways was provided.

A submission into ENRC Inquiry Rural Drainage in Victoria was prepared.

A project brief has been developed for investigating the impact of quarrying the valley of the Goulburn River. Funding is being sought from the Department of Environment and Primary Industries.

Responses to Parliamentary Inquiries, Law Review (Water Act, and Planning and Environment Act), and internal audit will provide improved outcomes in the medium term, but have placed significant demands on resources within the Statutory Planning and Floodplain Management Team in 2013-14.

## Works and operations

### Floodplain management actions 2013-14

Action		From funds received through Corporate Plan	
		Achieved <sup>i</sup>	% of responses
<b>Integrating knowledge into planning</b>			
Land Use Development Direct Applications (LUD)	no.	98	13
Planning Scheme Amendment	no.	1	0
Flood Information Request Direct Applications (FIR)	no.	76	10
Other Direct Application (DAOTH)	no.	3	0
Land Use and Development [Formal] [S 55]	no.	435	55
Land Use and Development [Advice only] [S 52]	no.	35	4
Certification of Subdivision [S 8]	no.	64	8
Subdivision and Certification [S 55 & S 8]	no.	12	2
Notice of Planning Scheme Amendment [S 19]	no.	23	3
Victorian Building Regulations [VBRs] [R 802]	no.	13	2
Other LGA Application (LGAOTH)	no.	25	3
Query & Notification of Unauthorised Work		1	0
Work Plan [Minerals and Energy] [S 77]		2	0
<b>Total</b>		788	100
Victorian Civil Administration Tribunal and panel hearings attended	days	8	
<b>Floodplain implementation</b>			
Ground level information	no.	7	High resolution Light Detection and Ranging (LiDAR) that is suitable for flood studies has been delivered at a number of towns across the Goulburn Broken Catchment, including: Avenel, Marysville, Seymour and Whiteheads Creek, Taggerty, Tongala, Tungamah and Yarrawonga.
Peak Flood Level Information	no.	1	Some new peak flood levels have been captured around Numurkah to assist with the current flood study. A large number of additional floor levels were also collected to assist with the assessment of potential flood mitigation strategies.
Urban flood studies and management plans	no.	1	Murchison Flood Mapping Study.
Regional flood studies and management plans	no.	0	
<b>Creating awareness</b>			
Flood education and awareness program	no.	6	Assisting with the development of Flood Safe Guides and Municipal Flood Emergency Plans.

<sup>i</sup> Most actions are performed reactively so no targets are set annually, however there are KPIs relating to regulatory waterway/water functions (see page 95).

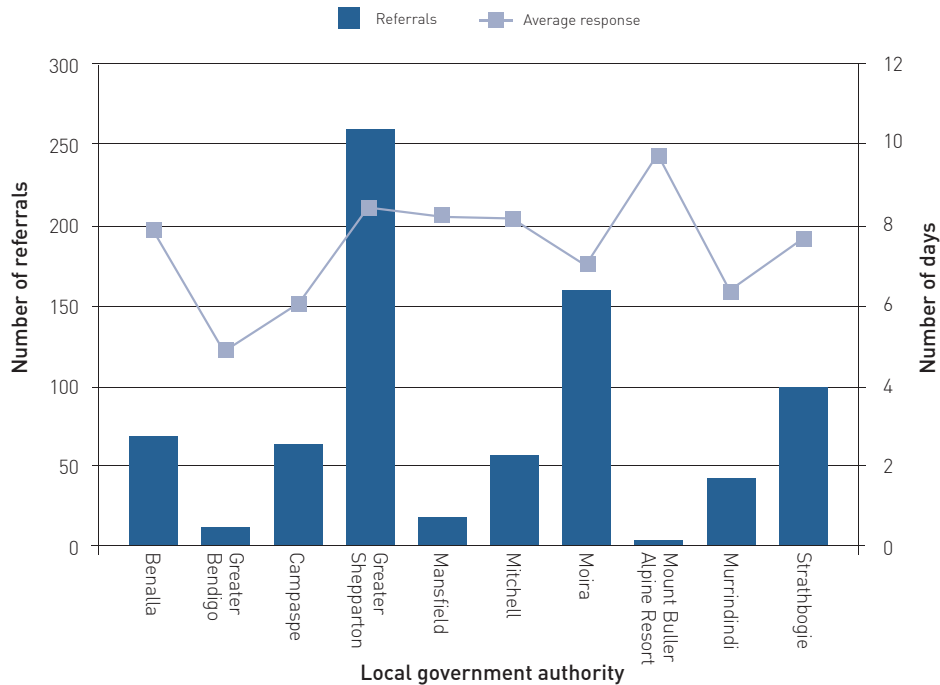
Works within or across a waterway require a licence from the Goulburn Broken CMA to ensure risk to river health and stability are not compromised.

A total of 866 applications and referrals were processed, which included 788 floodplain management and 78 works on waterways applications. The response time for

floodplain applications was eight days on average, with 97 per cent of all responses within the allowed timeframe of 28 days.

A breakdown of the number of floodplain applications and referrals received from each local government area and the average response time is shown in the figure below.

**Number of referrals by local government authority and average response times for 2013-14**



### 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](http://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.
- The Victorian Floodplain Management Strategy will be introduced leading to opportunities for preparing a full, revised regional floodplain management strategy.
- Opportunities to work with the Murray-Darling Basin Authority to look at environmental floodplain watering along the mid and lower Goulburn River will be captured.

## Case study

### Building community resilience from major floods

The FloodSafe and RiverConnect programs are examples of multiple agencies and communities working together to build community resilience from major floods. Several FloodSafe guides have been prepared by the VICSES, with input from Councils, Goulburn Broken CMA and the community, detailing flood intelligence such as historical flood heights and consequences. Greater Shepparton City Council and the Goulburn Broken CMA, in association with the RiverConnect initiative, has installed four new flood markers displaying historical flood heights of major

floods, flood class levels used for flood warning and a QR Code that provides links to detailed information on the RiverConnect's website. The flood markers provide an education and awareness tool, and together with the FloodSafe guide, communities and individuals can become more resilient to floods by minimised flood damage and human suffering.

The flood markers are located at the viewing platform in Murchison, looking over the Goulburn River, at Dainton's Bridge in Shepparton, Jackson's Park in Kialla (Broken River) and Chinaman's Gardens in Mooroopna.

## Investment area 3 - Land and biodiversity

Compiled by: Steve Wilson, Jenny Wilson, Carla Miles, Tony Kubeil, Kate Brunt, Greg Wood, Rhiannon Apted, Janice Mentiplay-Smith, Jim Begley, Karen Brisbane, Charlie Sexton and Chris Burnett.

### Government investment<sup>i</sup>, \$000

Investment Area	2011-12	2012-13	2013-14	2014-15 <sup>ii</sup>
3a Biodiversity	5,244	4,933	5,381	3,152
3b Land health, including dryland salinity	1,293	1,577	990	990
3c Invasive pests and animals <sup>iii</sup>	0	0	0	0

i Plus co-investment in biodiversity from other investment areas.

ii Forecast based on advice at July 2014.

iii DEPI 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

- *Environment Protection and Biodiversity Conservation Act 1999*
- *Aboriginal Heritage Act 2006*
- *Catchment and Land Protection Act 1994*
- *Flora and Fauna Guarantee Act 1988*
- *Catchment and Land Protection Act 1994*
- Permitted Clearing of Native Vegetation – Biodiversity Assessment Guidelines
- Basin Salinity Management Strategy 2001-2015 (MDBC 2001)
- Department of Environment and Primary Industries Soil Health Strategy 2012
- Goulburn Broken Biodiversity Strategy 2010-2015 (GB CMA 2010)
- Goulburn Broken Land Health Statement Draft 2014
- Goulburn Broken Regional Catchment Strategy 2013-2019
- Goulburn Broken Native Vegetation Plan 2003
- Dryland Salinity Management Plan 1989 (and reviews 1995, 2001, 2008)
- Invasive Plants and Animals Policy Framework
- Goulburn Broken Invasive Plants and Animals Strategy 2010-2015
- Goulburn Broken Regional River Health Strategy 2005, Addendum (GB CMA 2010)
- Goulburn Broken Waterway Strategy 2014-2022 (GB CMA 2014)
- Victorian Landcare Program Strategic Plan (DEPI 2012)
- Goulburn Broken Community NRM Plan 2013-2014

### Background

The Catchment's land and biodiversity includes two main features: soil, which is a fundamental part of the natural environment and supports ecosystems and livelihoods of the catchment community, and biodiversity, which encompasses the variety of ecosystems, including native vegetation, wetlands and waterways, and the associated plants, fungi, animals and genetic diversity they contain. Many of our vegetation ecosystems, faunal communities and species are threatened with extinction and soils are often degraded. To conserve soils and biodiversity we need to increase their resilience through positive land management changes such as soil conservation practices, revegetation, remnant protection and providing ecologically meaningful linkages.

Ecosystem resilience is critical in supporting productive and sustainable landscapes by providing ecosystem services such as pollination, pest control, native species habitat, healthy soils, clean air and providing an aesthetically pleasing place to live and recreate. The Land and Biodiversity Program focuses on the connections between the need for ecosystem resilience and provision of productive land and as a result, healthy and sustainable communities. Investment in the Catchment's biodiversity and land health is guided by the Biodiversity Strategy for the Goulburn Broken Catchment 2010-2015, the Goulburn Broken Land Health Statement 2014, and other regional, state and national policies and strategies.

The Land and Biodiversity Program's vision (updated in 2012) is *'Healthy and resilient ecosystems and an actively involved and inspired community practising sustainable natural resource management.'*

The Land and Biodiversity team delivers various projects funded from state and federal programs. Activities funded include: protection of native vegetation from inappropriate grazing regimes through fencing remnants and wetlands; revegetation to reinstate understorey in remnants; and revegetation and regeneration to create buffers, corridors and linkages between remnants. Extension and education increases awareness of the issues associated with healthy landscapes. For example, through the Australian Government funded Beyond SoilCare project and partnerships with community Landcare and conservation management networks, field days on landholder properties are conducted and management agreements, including for pest plant and animal control, are developed with landholders.

Separate soils, waterways, wetlands and terrestrial habitat projects are integrated through works that recognise the interconnectedness and importance of all elements in creating resilient systems within and beyond the farm fence. Actions that help implement such a systems-based approach while meeting funding and specific project priorities include integrated prioritisation of areas for works and integrated management planning for landholders who receive incentives. Soil-focused projects include encouraging farmers to consider broader biodiversity outcomes when assessing soil health.



Australian Government support and priorities have recognised the need to address climate change, resulting in new opportunities for carbon sequestration activities and a strategic natural resource management plan to address how the Catchment might adapt to climate change (see climate change section on page 31 for details).

Partnerships with community groups, various government agencies including Parks Victoria and Department of Environment and Primary Industries, local government, water authorities, Country Fire Authority and individuals are critical to the Land and Biodiversity team in achieving strategic priorities. For example, the Land and Biodiversity Implementation Forum (LaBIF) provides an opportunity for agencies and community networks to work together on better ways of implementing land and biodiversity outcomes. Engagement is the key to team success: in 2013-14 team members attended 145 events and shared information with 4,329 participants.

In 2013-14, some government funds were offered directly to community groups rather than managed by the CMA. The Land and Biodiversity team's services included assistance with funding applications and general support and resources so that works are to agreed standards and aligned with catchment priorities. Funding to community groups included the Victorian Government's Landcare grants \$245,000 and Communities for Nature projects (Woodland Birds for the Broken Boosey \$149,910, Yellow Gums and Goldfields \$149,210 and Practical Parrot Action \$147,000) and the Australian Government's Regent Honeyeater Project \$145,000.

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 the Department of Environment and Primary Industries).

## Investments area - 3a Biodiversity

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

Decision focus <sup>i</sup>	Examples of evidence used to inform decisions	1990 <sup>ii</sup>	Certainty of rating	2014	Certainty of rating	Trend
2013-14 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 <sup>iii</sup>	Tasks (scheduled between 2000 and 2014)	n.a.	n.a.	On Target	Medium-High	● <sup>iv</sup>
Catchment condition	Native vegetation extent and quality Threatened species populations Water regimes of environmental features Management systems	Poor <sup>ii</sup>	Medium	Poor <sup>ii</sup>	Medium	●

i See Appendix 1 for notes on the analytical framework (page 130), including an explanation of the decision focus and ratings.

ii The rating of Catchment condition is determined using the reference point of pre-European settlement as excellent.

iii Refers to Biodiversity Strategy only. Evidence related to aquatic, including wetland, biodiversity such as environmental share of water supply and environmental water is described in 'Investment area 2 River and Wetland Health'.

iv Assumed to parallel government funding trend, which includes funding from investment area 2 River and wetland health. Although the symbol is a static trend, this implies that Strategy tasks are successfully being implemented. If there was a significant increase in funding and capacity to achieve biodiversity outcomes, the trend would be reflected with an 'improving' symbol

### Catchment condition

Against a reference point of pre-European settlement, the condition of the Catchment's biodiversity has been rated as 'poor' and this rating has not changed since 1990. However, the rating uses the reference point of 'pre-European' to measure current condition, and this may need revision because we do not aim to restore landscapes to pre-European condition. If we used a reference point that is more meaningful, for example one that considered production and other values, then it is possible that catchment condition could be shown to have improved beyond 'poor' since 1990. Changing the reference point may be useful because while we do not expect the Catchment to ever revert to pre-European condition, we expect most biodiversity can be conserved if supported by adequate legislation and we manage resources and threats strategically. New and existing research partnerships should help us better refine targets and assumptions that help us to better manage biodiversity through strategic planning based on best available science.

A major threat to the condition of biodiversity is climate change, which will result in an increase in frequency of extreme events. In particular, the increased likelihood and frequency of fire, together with the large-scale and frequent fuel reduction burning, is of concern. Other threats include: the continued decline in threatened species as the 'extinction debt' from past clearing is realised; continued habitat loss through permitted and illegal clearing of native vegetation and weed invasion; habitat loss through, for example, logs used for firewood and 'cleaning up' by landholders (removing important leaf litter and fallen logs); and the inability of flora and fauna to move through fragmented landscapes, creating genetic bottlenecks and loss of sub-populations.

### Long-term strategy implementation

'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 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, which will be updated in 2015 when the Biodiversity Strategy (2010-15) is revised, 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 ten 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. The condition of aquatic (including wetland) biodiversity is described in 'Investment area 2 River & Wetland Health (page 42).

With just one year remaining of the Biodiversity Strategy (2010-2015), implementation progress remains on track. Of the 64 actions identified in the strategy, most are either underway, ongoing (with strong progress), or have been completed.

Progress towards the Biodiversity Strategy's five strategic directions is summarised below. Many achievements are described in detail elsewhere in this annual report, reflecting the emphasis on integrating biodiversity into complementary programs.

## 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, and partnering and fostering research with universities.
- Continuing to be at the forefront of strategic planning, including adopting resilience theory.
- Proactively responding to changing government funding has ensured sound investments that match catchment, state and national priorities.
- Supporting and influencing the development and implementation of the Goulburn Broken Regional Catchment Strategy 2013-2019.
- Seizing funding opportunities for climate change planning.
- Providing tailored support to a changing social landscape through a mix of community engagement approaches.
- Adapting to changes in delivery partners and the distribution of funds direct from government to individual and community groups such as DEPI's Communities for Nature and the Australian Government environmental grants program.

## Nurturing partnerships:

- Building on existing partnerships, particularly with indigenous groups and landholders to achieve strategic outcomes.
- Facilitating the Land and Biodiversity Implementation Forum, now in its fourth year, to ensure catchment-wide communication, coordination and action.
- Continuing cross border partnerships, including Murray Local Land Services, and Yorta Yorta Nation.

## Investing more wisely

- Priorities from the Biodiversity Strategy have been translated into landscape planning and implementation, aided by regular reviews of Strategy progress.
- Priority zones identified in the Biodiversity Strategy are targeted for landholder incentives where there is alignment with investor priorities.
- New research is helping to further develop a long-term monitoring approach to measuring biodiversity outcomes.

## Building on our ecological infrastructure

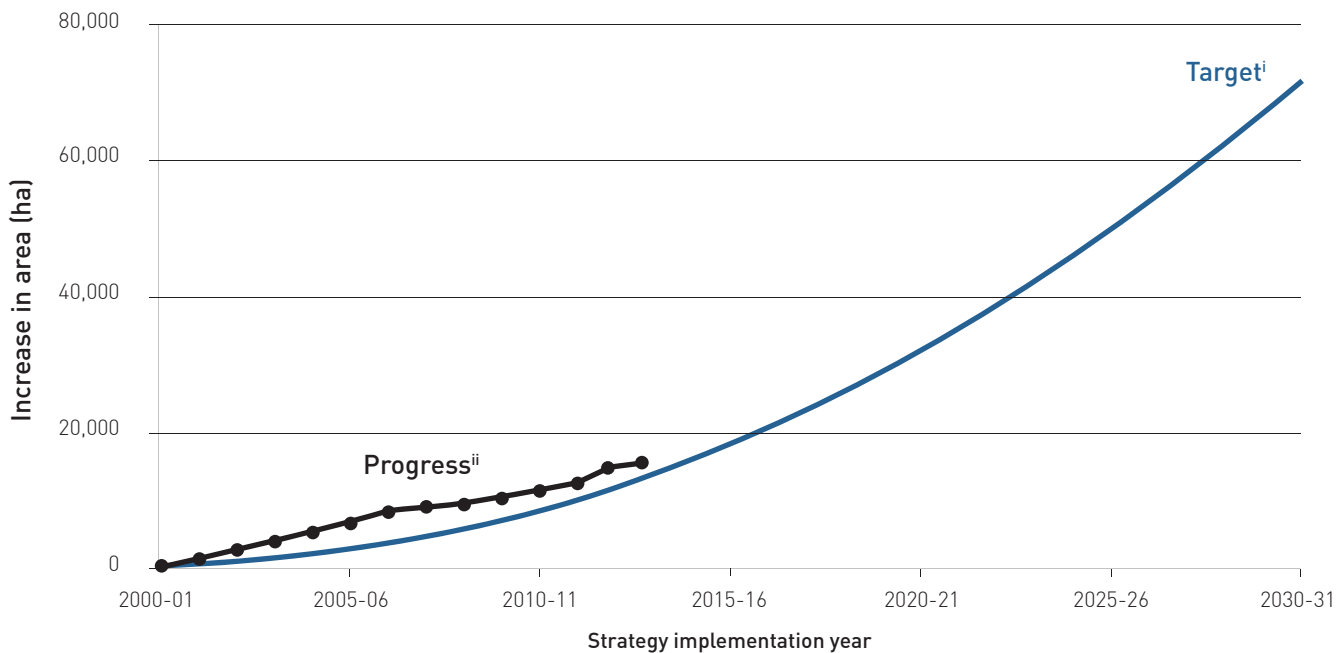
- Incentives focused on improving landscape connectivity and function, and climate change adaptation.
- Seedbank projects ensure seed supply for future landscape-scale revegetation projects.
- Three long-term Australian Government funded projects continue: Biodiverse Carbon Landscapes, Seed Supply for Revegetation and Sand Ridge Woodlands.
- Australian Government Regional Delivery Funding continues to protect and enhance Nationally Significant Ecosystems and species.

## Legitimising biodiversity conservation

- Ongoing efforts to promote integration of biodiversity conservation and agricultural production through opportunities for landholders to act as stewards of the land and by other educational approaches.
- Conservation Management Networks promoted and recognised as playing a valuable role in promoting the importance of biodiversity conservation.
- Coordinated efforts to raise awareness of key biodiversity assets, such as scattered trees, and threats, such as 'cleaning up' fallen timber and leaf litter.
- Involvement in a range of research projects that aim to provide stakeholders with science-based evidence of the importance of biodiversity in the Catchment, region, and personal health and wellbeing.

While acknowledging uncertainty, we appear to be making progress towards vegetation extent targets (see graph next page). However future rises in extent need to be much greater if we are to reach the 2030 target. The amount of revegetation possible is currently restricted by funding and not by the communities' or individual landholders' desires to revegetate.

## Progress towards native vegetation extent target<sup>i</sup>, increase in area, hectares



- i Resource condition target (revised 2009): Increase the extent of native vegetation in fragmented landscapes by 70,000 hectares by 2030 to restore threatened Ecological Vegetation Classes and to improve landscape connectivity. Note that native vegetation extent is just one indicator of biodiversity. Other indicators such as native vegetation quality are more difficult to measure and it is probable that the trend may not be as positive as it is for native vegetation extent.
- ii Based on assumptions of gains in vegetation (such as revegetation and natural regeneration) and losses of vegetation (such as legal and illegal clearing). Vegetation burnt by major fires in natural areas is not included as a loss of extent, as it is assumed the area burnt will regenerate by 2030. However, direct vegetation removal associated with fires, such as removal of 'high risk' trees on roadsides and private land or death of scattered paddock trees from fire, is assumed as a loss in the net outcome in the year of the fire (for example, the 2009 Black Saturday fires and the 2014 Wunghnu fires), and includes an ongoing loss due to fire suppression activities. Detailed explanation of these assumptions can be found at [www.gbcbma.vic.gov.au](http://www.gbcbma.vic.gov.au).

### 2013-14 performance

Implementation of the Goulburn Broken CMA's Biodiversity Strategy 2010-2015 is in the final stages, and continues to be delivered through a range of projects and stakeholders.

The 2013-14 contribution towards the five Strategic Directions in the Biodiversity Strategy are described below.

#### Biodiversity strategic direction 1: Adapting to change

Following changes to funding delivery model, the Goulburn Broken CMA increased efforts assisting community groups in applying for funding and playing a coordinating role. A sub-committee of the Land and Biodiversity Implementation Forum was formed to address coordination, consistency and standards for the delivery of incentives to landholders as new programs and service providers come on board. Workshops allowed different organisations to identify common broad principles, standards and guidelines that will be adopted across the Catchment's works programs. Updated operating guidelines for environmental incentives are being produced to ensure the use of consistent delivery standards.

Relevant actions from the Biodiversity Strategy and background knowledge were incorporated in the first draft of RCS local plans.

#### Biodiversity strategic direction 2: Nurturing partnerships

Partnerships continue to be key in achieving the vision of the Biodiversity Strategy. The Goulburn Broken CMA continued to engage natural resource management groups and networks, community groups and Traditional Owners in a variety of innovative ways.

During 2013-14, more than 145 field days or workshops were attended by over 4,329 people (this includes 102 events for Biodiversity Spring, which the Goulburn Broken CMA was involved in coordinating).

The program continues to support the Network Chairs Forum (Landcare and Conservation Management Networks) that meets quarterly with the Chief Executive Officer and senior staff to influence policy and works and discuss local issues.

Goulburn Broken CMA staff helped natural resource management groups and networks secure \$1.4 million to deliver over 40 projects and coordinated the Initiative Training Program, which saw 163 staff and community members attend training on facilitating discussions and planning, skills for peer learning and developing local groups.

Changes to partner agency capacity saw a shift in some areas to outsourcing project delivery to community groups with a good track record of delivery, supported by the Goulburn Broken CMA to continue building capacity in areas such as spatial recording of works completed and improving Occupational Health and Safety practices and compliance.

The Land and Biodiversity Implementation Forum is facilitating critical partnerships and coordination (planning and implementation) across the Catchment, particularly as funding sources and opportunities have become more dispersed. Collaborative projects and networks are a major benefit of the Land and Biodiversity Implementation Forum.

Integration between Goulburn Broken CMA programs is demonstrated by ongoing wetland incentive projects, in particular for seasonally herbaceous wetlands.

**Local government partnerships:** The Goulburn Broken Local Government Biodiversity Reference Group convened by Moira Shire Council and funded by the Australian Government celebrated its seventh Anniversary in August 2013. The Group involves eight 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. A key focus of the Local Government Biodiversity Reference Group has been identifying issues and risks and then improving awareness, responses, practices and other activities related to appropriate management, such as management of threatened grassy woodlands. A scoping study of native vegetation offset management determined a more consistent and effective process across the eight shires.

**Indigenous partnerships:** Indigenous partnerships continued to grow, achieving both targeted biodiversity outcomes and indigenous involvement and employment. The Sand Ridge Woodlands project continues to foster a working partnership between Murray Local Land Services, NSW Parks and Wildlife Service, Parks Victoria, Yorta Yorta Nation Aboriginal Corporation and Goulburn Broken CMA. The project boundary works within the Yorta Yorta traditional boundary, utilising Traditional Owner works crews to deliver projects. All sites are surveyed for cultural heritage prior to works. This project is entering its third year and continues until 2017. In the spirit of building the capacity of traditional owners across the Catchment, a Goulburn Broken Indigenous Consultation Group has been formed, including representatives from both Yorta Yorta and Taungurung Nations and a suite of education and training entities. Supported by funding from the Australian Government, this group comes together quarterly to discuss and activate opportunities for indigenous people to engage in mainstream natural resource management.

**Conservation management networks (CMNs):** The success of our five conservation management networks in increasing community engagement in biodiversity conservation continues. Conservation Management Networks are continuing to develop new partnerships with different segments of the community, including Heathcote Community House, Mandalay Resources, Heathcote Farmers Market Committee, Glenrowan-Warby Lions Club, Glenrowan Primary School Parent Club, Birdlife Australia, Yarrawonga and Shepparton Men's Sheds, Heathcote Golf Club, Glenrowan, Winton, Heathcote and Currawa Primary Schools, Benalla P-12 College, Shepparton U3A, and the Friends of Winton Wetlands. The breadth of community education and engagement is increasing. Attendance at conservation management network field days and workshops is often between 50 and 100 people.

**Supporting individual landholders:** Numerous property visits were made under the range of biodiversity programs offering landholder extension and incentives. The importance of ongoing support to landholders receiving incentives is well recognised. Some properties where landholders have previously entered into five and ten year management agreements were revisited. However, limited resources are a barrier to undertaking routine revisits.

### Biodiversity strategic direction 3: Investing more wisely

Continuous improvement and adaptive management underpin the implementation of the Biodiversity Strategy. Project planning is guided by recommendations arising from periodic strategy reviews. Synergies are identified between the Biodiversity Strategy, government funding priorities and expressions of interest from the community and other partners.

A mix of incentive projects were run, aided by the coordinating role of the CMA.

The Biodiversity Monitoring Action Plan continued to guide research priorities and help us understand progress towards catchment targets. A review of this plan is informing new directions for the next Biodiversity Strategy.

Landscape-scale planning has been undertaken across some priority zones of the Catchment, for example, in the Agricultural Floodplains SES. While there are areas important for intensive production, some areas have valuable remnant vegetation. These areas are being identified with the assistance of community members and from there we can prioritise works to achieve a collective vision for each priority landscape. These priority landscapes will be considered in the development of local plans across the six social-ecological systems identified in the RCS.

Developing a long-term monitoring approach to measure biodiversity outcomes from investment has been a focus during 2013-14. A research project by Deakin University, 'How much Revegetation is Enough', is monitoring birds as indicators of landscape change and identifying potential indicators of habitat quality. A broader proposal has been developed to build on this current research, encouraging collaboration between CMAs and research partners to assist with resources for a long-term biodiversity monitoring strategy for woodlands across south-eastern Australia.

**Fauna monitoring:** As part of a multi-regional and interstate research project with Australian National University, long-term monitoring of fauna, including birds and reptiles, is underway within revegetated sites.

**Seed viability/provenance:** CSIRO, in partnership with Goulburn Broken CMA and the Goulburn Broken Indigenous Seedbank, is undertaking genetic studies of native seed stock for improved use in revegetation projects across the Catchment. The project is funded through the Australian Government.

**Assessing tree cover at Bush Returns sites:** Work has commenced on analysing landholder photo point data as a way of measuring tree cover change at a select number of Bush Returns sites. This will be coupled with aerial photography comparisons and field assessments in 2014-15.

There has been a coordinated approach to standardising evaluation of projects, for example consistent survey questions and approaches tailored to participants of various projects. Results have been incorporated into reporting to investors.

## Biodiversity strategic direction 4: Building on our ecological infrastructure

Improving landscape connectivity, function and climate change adaptation is largely dependent on the resources that come into the Catchment to achieve large scale onground change. The Land and Biodiversity Program received various funding grants: \$502,000 through the Victorian Investment Framework; \$4,136,500 through the Australian Government's Regional Delivery program and \$2,194,880 for a further three Australian Government environment projects: Biodiverse Carbon Landscapes, Seed for Revegetation and Sand Ridge Woodlands.

### Regional Delivery projects (2013-18) for 2013-14:

Building Traditional Owner Capacity and Participation \$337,766, outputs achieved: Yorta Yorta NRM plan and MOU between YYNAC and GB CMA launched (40 participants), Taungurung NRM plan under development, 70 indigenous people attended field events.

Building NRM Community, Skills, Knowledge and Engagement \$175,030, outputs achieved: 50 indigenous people attended training, 84 attended field events, with 27 community groups supported.

Improving the resilience of woodland and wetland ecosystems in the Goulburn Broken \$1,178,315. Outputs achieved: 232 hectares of wetlands and woodlands secured under 10-year management agreements; 61 landholders were engaged in the project this year (not all were eligible or proceeded with incentives).

Building the resilience of EPBC threatened species in the Goulburn Broken Catchment \$466,666. Outputs achieved: 96.2 hectares of remnant woodlands were protected; 40 hectares of weeds and pest animals were controlled; 15 community groups were supported and 50.5 hectares revegetated.

Community Directed Action Learning to Enhance Soil Ecosystem Services \$990,305. Outputs achieved: 284 hectares of agricultural practice change; 100 farmers attending soil biology workshops at Benalla and Glenburn; 60 farmers attending soil workshop in Mansfield.

Regional Landcare Facilitator Goulburn Broken \$150,000. Outputs achieved: 40 hectares of agricultural practice change; 145 participants at training events and 292 participants at workshop events.

**Biodiversity Fund projects (2012-17) outputs for 2013-14:** Biodiverse Carbon Landscapes. Outputs achieved: 861 hectares of revegetation; 615 hectares of remnant protection under 10-year management agreements across 41 farms.

Seed for revegetation. Outputs achieved: 10 new seed production areas established; 1100 plants planted.

Sand Ridge Woodlands (cross-border). Outputs achieved: 1,132 hectares of revegetation (including 1,080 hectares in NSW); 97.3 hectares remnant protection (including 42.1 hectares in NSW); 1,208.6 hectares of pest plant and animal control (including 1098.9 hectares in NSW) and notably 657.5 workdays undertaken by indigenous people involved in the project. Note: as a multi-regional, cross border project outputs for this project include those achieved in the Murray Catchment of NSW.

### Community Group projects outputs for 2013-14:

Funding sources were Australian Government Building NRM Community, Skills, Knowledge and Engagement \$175,030 and Victorian Landcare grants \$240,000.

The Superb Parrot Project achieved 18 hectares of revegetation (Australian Government).

The Regent Honeyeater Project achieved 50.5 hectares (Australian Government).

Broken Boosey and Whroo Goldfields Conservation Management Networks achieved 150 hectares of revegetation via Communities for Nature projects; Yellow Gums and Goldfields and Blueprint for Woodland Birds in the Broken Boosey; (Australian Government funded) Indigenous works crews: Woka Walla, Yorta Yorta Nation and Taungurung Clan delivered fencing, weed control, revegetation works and native seed collection (Australian Government).

The Australian Government funded Sand Ridge Woodlands project achieved 253 kilograms of seed, of which 109 kilograms was from seed production areas and the rest from natural populations. Seed production areas such as the Euroa Arboretum collect relatively large volumes of seed from threatened species.

## Biodiversity strategic direction 5: Legitimising biodiversity conservation

Significant effort continues to build biodiversity understanding and awareness across the Catchment. This includes: regular workshops and presentations on biodiversity, development of education and awareness pamphlets on biodiversity topics, and the regular attendance of staff at the Wilmot Primary School. This year, members of the Land and Biodiversity Implementation Forum participated in a coordinated effort to raise awareness of the importance of scattered trees and fallen timber, such as through media releases.

Fifty people attended the popular Box-Ironbark and Floodplain Ecology Courses, which continued to be supported by the Goulburn Broken CMA, and delivered by the Broken Boosey and Whroo Goldfields Conservation Management Networks. During 2013, 13 indigenous people completed the courses.

While more landholders may be viewing biodiversity conservation as a legitimate land use and integral part of land management, financial, technical and other support, for them to actively manage biodiversity needs to be available with support from both investors and the broader community.



## Actions 2011-12, 2012-13 and 2013-14

Action	From funds received through Corporate Plan					
	Achieved <sup>i</sup>			Target	% achieved	
	2011-12	2012-13	2013-14			
<b>Stock grazing management action</b>						
Fence terrestrial remnant vegetation	ha	728	1,783	1,004	473	212
Fence wetland remnant	ha	160	73	128	88	145
Fence stream/river remnant <sup>ii</sup>	ha	337	126	87	0	
Binding management agreement (licence, Section 173, covenant) <sup>iii</sup>	ha	380	329	0	75	0
Grazing regime change	ha	0	0	0	0	
<b>Habitat loss management</b>						
Revegetation – plant natives	ha	1,995	2,957	1,211	778	156

i Achievements include those from complementary investment areas (SIR salinity, Riparian and in-stream habitat and channel form and Dryland salinity). For a full list of footnotes see Appendix 4 on page 137.

ii Area figure supplied by River Health Implementation Manager

iii This is for the first year of a five year project (target over five years is 375ha and hectares will only be reported once covenants are on title, which takes more than 12 months).

## What's next?

- A final review of the Biodiversity Strategy next year will define the scope and focus of the next Biodiversity Strategy for the Catchment. This will be considered alongside the development of local plans, a key tool being developed to help implement the RCS 2013-2019 at local levels.
- Ensuring key actions for biodiversity planning, MER and implementation are incorporated in local plans.
- Greater application of resilience thinking, including testing the alignment of existing objectives/targets with resilience thresholds. Further planning and delivery across six sub catchment areas, referred to as social-ecological systems; and better understanding of relationships between people and nature.
- Making use of new planning tools such as the Spatial Assessment Tool developed under the NRM Planning for Climate Change project.
- Significant funding of incentives to landholders will continue to improve the connectivity and viability of landscapes, through a combination of remnant protection and enhancement and revegetation to link high priority sites.
- Legitimising biodiversity conservation will continue through ongoing support to landholders for managing their natural resource assets.
- Specific, targeted, well-planned education campaigns to address specific biodiversity threats will be implemented directly and through conservation management networks, and supported by other community groups.
- Conservation management networks will continue to strengthen in the region, and play a major role in delivering works across the Productive Plains, Upland Slopes and Agricultural Floodplains social-ecological systems.
- Review the Biodiversity Monitoring Action Plan.
- Work more closely with other programs within the CMA on common areas of work such as; prioritising works within a strategic framework, ecological monitoring, adaptive management and project delivery.
- Continue to implement the monitoring, evaluation and reporting activities and build the skills of staff to undertake evaluation as part of a continuous improvement process.
- Continue to promote the role of highly modified agricultural lands in delivering all natural resource management outcomes through the provision of ecosystem services and management of disservices.
- Continue to build indigenous skills, knowledge and capacity to deliver works, contribute to natural resource management planning, traditional ecological knowledge and undertake indigenous projects on country.
- Assess the impacts of changes made to the State Government's native vegetation regulations (Dec 2013), and the role of the CMA, for example, in offsets processes.

## Case study

### Protecting habitat for Turquoise Parrot

Community and landholder involvement is critical to improving and protecting habitat for the threatened Turquoise Parrot.

Turquoise Parrots were almost driven to extinction in Victoria around the early 1900s due to habitat loss, but populations have re-emerged since the 1940s, especially in the Warby-Chesney hills. Many of these populations are on private land adjoining public reserves. This two-year project, co-ordinated by the Broken Boosey Conservation Management Network and Chris Tzaros from Birds, Bush and Beyond, will provide grants to landholders for nest boxes and fencing to protect remnant vegetation, which revegetates the landscape and provides habitat corridors for these beautiful birds.

The project was launched in May, with 90 people attending and more than half signing up to be involved in activities such as nest-box building, monitoring and field days.

Already, 30 monitoring sites have been established, signage erected on properties involved in the project and 40 nest boxes have been installed.

To keep the community interested and informed of activities, a newsletter (Turquoise Parrot Times) is letter-box dropped to households across the Warby-Chesney Hills and emailed to MPs, media and other interested parties. Updates are also provided via the Broken Boosey CMN's web page and the CMA's social media channels.

The two-year Practical Parrot Action Project, which received \$285,620 of funding through Round Three of the Victorian Government's Communities for Nature initiatives, is supported by the Goulburn Broken CMA.

## Investment area - 3b Land health (including dryland salinity)

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

Decision focus <sup>i</sup>	Examples of evidence used to inform decisions	1990 <sup>ii</sup>	Certainty of rating	2014	Certainty of rating	Trend
2013-14 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 2014)	n.a.	n.a.	Below Target	Medium	↓ <sup>iii</sup>
Catchment condition <sup>iv</sup>	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 130), including an explanation of the decision focus and ratings.

ii The rating of Catchment condition in 1990 was determined using our understanding in 2014 of the situation in 1990.

iii Assumed to parallel government funding trend, which includes funding from investment areas 2a and 2b.

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.

### Catchment condition

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.

There is currently no specific measure of land health condition. A reasonable interim surrogate measure could be soil health, but a reference point has not been determined. A benchmark of soil condition is needed to provide better assessment of the current condition and targets are required to measure progress.

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 important in the Land Health Program because they affect other assets and undermine the resilience of our soil systems.

Erosion is tracking as would be expected and remains a problem. There are a lot of degraded land sites in the Catchment, particularly in the south and south-east, and the sites will continue on their anticipated trajectory unless we intervene or they reach a changed state. The rate of change or progress of these sites is affected by the season. In 2013-14, there has been good rainfall and soils are saturated so erosion is becoming more active and we may see a significant deterioration in stream and land condition as a result.

With a very dry spring-summer, and continuing wet autumn-winter, hydrograph data shows that bores in the mid Goulburn remain relatively steady, while many bores in the upland are continuing to rise. A few in the riverine plains continue to show a falling trend, either because they are in a groundwater sink or regional systems are slowly responding to changed seasonal conditions.

It remains an expectation that saline discharge will emerge as a more obvious problem in the next three to five years.

### Long-term strategy implementation

The Goulburn Broken CMA continues to work closely with the Department of Environment and Primary Industries for strategic implementation of land health outcomes.

The Land Health Statement (LHS) prepared in 2013-14 outlines the direction for the Land Health Program and its activities in the Goulburn Broken Catchment as described in the RCS.

#### Soil Health Action Plan (SHAP)

The SHAP has not had direct funding since its development in 2006, however many actions continue to be delivered through alignment with existing programs. To date, this has been through a partnership with the Department of Environment and Primary Industries, supported by the Victorian Government-funded Land Health Program and the Australian Government-funded Sustainable Farming Practices and Beyond SoilCare projects. In 2013-14 we saw a change in investment from onground incentives, such as land class fencing, to extension, engagement and farmer-led trials.

Progress against the seven SHAP programs includes:

*Program 1 Coordination:* preparation of a Land Health Statement, development of project agreements with community groups, community input into activity development, participation in the Soils Community of Practice group. (LHS Action 2 & 3).

*Program 2 Community engagement:* Eleven community projects were funded through the Beyond SoilCare Small Project Grants to the value of \$90,000. Regular meetings were held with the Landcare Facilitator and Coordinators group, the Regional Landcare Facilitator Steering Committee and the Land Health Hume team. Over 800 people attended SoilCare-funded activities in 2013-14. (LHS Action 1 & 3).

*Program 3 Improved management practice:* promotion of land management to land classes, controlled grazing in soil management, support of eight farmer-led demonstration trials in practices including alternative fertilisers, sub-soil manuring, enhancing soil biology, cover-cropping and stubble management, delivery of fertiliser and lime budgeting workshops, grazing management workshops, native grass identification and management field days. (LHS Action 1, 2, 3, 4 & 5).

*Program 4 Whole farm planning for soil health:* expanded to become more issues-focused, making soil health program delivery more relevant to community members. The Land and Biodiversity program developed the concept of integrated landscape management and its application to program delivery. (LHS Action 1 & 3).

*Program 5 Working with local government:* currently unfunded.

*Program 6 Monitoring and evaluation:* development of qualitative and quantitative measures to assess landholder interests and satisfaction with program delivery, a core requirement in the investment program. Benchmarking condition is still required: development will be in consultation with farmers on what is relevant for their system. Priority for LHS. (LHS Action 3 & 4).

*Program 7 Research and development:* participation in Soils Community of Practice Forum, Dryland Managers Forum, assisting program development for the Australian Society of Soil Scientists National Soil Conference, with a paper accepted to the conference. Papers were presented on community engagement in soil health to Natural Resource Management Conference and Soil Change Matters Symposium. (LHS Action 2, 3 & 4).

#### **Goulburn Broken Dryland Salinity Management Plan**

The 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).

A submission was put to the Murray-Darling Basin Authority to reduce the legacy of historic impacts of dryland salinity and 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.

#### **Land Health Statement 2014**

In 2013-14, the main outcome sought by investors was farmers developing and implementing practices to increase productivity while improving the delivery of ecosystem services from soils. The mechanism has been to develop strong relationships with farmers in small groups, based on evidence that landholders require follow-up support to implement practice change. The discussion group approach was also a result of feedback from the 2012-13 program that farmers want to direct their learning with peers, supported by experts. This combination gives confidence to trial and adopt new practices, in contrast to the delivery of information only. The program aligns the interests of landholders with investor priorities and strategic outcomes required through the RCS and LHS.

*LHS Action 1 Promote resilient farming systems and encourage sustainable land use change:* The main area of farmer interest remains in increasing soil carbon and ground cover as a means for increasing the resilience of soil systems to the emergence of variable seasonal conditions and extreme events. Event activities have focused on visual soil assessment, understanding inherent soil qualities and capability, soil mapping on farm, grazing management and native grass identification and management.

*Action 2 Develop partnerships with industry:* The main activity was the development of a successful funding bid to the Australian Government on behalf of a Best-wool Best-

lamb industry group to trial subsoil manuring in a medium rainfall zone grazing enterprise. This has extended to conversations with Meat and Livestock Australia, Australian Wool Innovation and a local wool marketing group, which should see this work develop further.

*Action 3 Promote community initiated project development and delivery:* The main activity has been the support of eight on-farm demonstration trials, twelve devolved grants to community Landcare and producer groups.

*Action 4 Promote adaptive management:* Part of the premise of this action is to recognise the primacy of self-interest married to a natural proclivity for land managers to look after their land. To this end, we have focused on activities that meet landholder needs, within the scope of the investment profile, and as outlined above in Action 1. Our next step is to develop appropriate measures of soil health and land condition in consultation with farmers.

*Action 5 Support climate change adaptation and mitigation:* Understanding soil capability, ground cover and grazing management has been the main focus with farmer discussion groups over the past 12 months. Priority locations for onground climate change action will be determined under the Climate Change Adaptation initiative, funded by under the Australian Government.

## **2013-14 performance**

### **Community engagement**

In 2013-14, the Land Health Program worked with the community and partners to deliver workshops, farm tours and field days that met community needs through the 'Beyond SoilCare' project, which continues to focus on building improved ecosystem services from soil and, in particular, soil carbon management. The project is funded by the Australian Government, supported by the Victorian Government through the Department of Environment and Primary Industries. The project works with community groups to address the issues of soil acidification, soil organic carbon, soil structural decline and ground cover management. Working with 20 community, Landcare and producer groups, it delivered education around soil-test interpretation, fertiliser and lime management, and sustainable farm practices. The main topics were in the areas of visual soil assessment, soil capability, soil mapping, fertiliser management and budgeting, ground cover and grazing management, native grass identification, soil biology, alternative fertilisers and subsoil manuring. In 2013-14 we delivered:

- 9 Beyond SoilCare discussion group meetings
- 1 soil biology workshop and farm tour
- 4 farm tours
- 1 bus tour
- 3 field days
- 6 workshops.

More than 800 people attended these events (Beyond SoilCare discussion group members remain the same meeting-in meeting-out) reflecting ongoing community interest in the improved management of soils and the opportunities to improve catchment condition by improving the health and stability of soils.

## Planning and responding

Activities and achievements included;

- preparation of the Goulburn Broken Land Health Statement 2014-18
- provided a representative for the Statewide Dryland Managers Forum
- presentation of project outcomes and processes for community engagement at the National Resource Management Conference and at the Soil Change Matters Symposium
- part of organising committee for the Australian Society of Soil Science Inc (ASSSI) National Soil Conference
- reviewed and updated Goulburn Broken CMA's Soil Health Action Plan (2006)
- promoted land manager behaviours that best demonstrated development of robust and adaptable systems for managing the impacts of climate change and the program.

## Works and operations

A dry spring again focused farmers on issues of pasture and stock management. Coming in to autumn, many landholders had to feed stock and their attention was again focus on feed availability and feed budgeting, indicating that we have work to do in assisting farmers plan management options for different scenarios.

Significant disruptions to works programs were caused by the removal of incentive funding from Australian Government-funded programs. Delivery partners also had reduced funding for onground works and incentives. The land health soils project was successful in retaining key partnerships with highly skilled staff, which allowed extension, engagement and practice change adoption targets to be exceeded.

## Actions 2011-12, 2012-13 and 2013-14

Action		From funds received through Corporate Plan				
		Achieved <sup>i</sup>		Target	% achieved	
		2011-12	2012-13	2013-14		
Fence remnant vegetation	ha	840	1,797	1,115	561	199
Irrigation drainage environment plans	no.	3	0			
New irrigation referrals dryland zone	ha	4	5	7	15	47
Improved irrigation dryland zone <sup>ii</sup>	ha	0	0	16	0	-
<b>Sub-surface water action</b>						
Revegetation – plant natives	ha	1,862	2,847	1,158	748	155
Pasture – plant	ha	0	0			
New groundwater pumps – public installed	no.	0	0			
<b>Planning for works action</b>						
Whole farm plans - Level 1 <sup>iii</sup>	no.	102	106			
Whole farm plans prepared - Level 2 <sup>iii</sup>	no.	142	16	2	0	-

i Achievements include those by complementary investment areas such as Biodiversity. For a full list of footnotes see Appendix 4 on page 137.

ii 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.

iii Level 2 is comprehensive and is equivalent to SIR's whole farm plan. Level 1 is a short-course that is a precursor to Level 2.

## What's next?

- Land Health Statement annual report and update.
- 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 through Beyond SoilCare.
- Define and map dryland catchment soil assets (biodiversity, structure, soil carbon storage etc.) and threats (salinity, erosion, soil acidity etc.).
- Coordinate peer supported learning opportunities, focused on management solutions and building the soil health community network.
- Showcase and connect farmers implementing improved management practices.
- Continue to build the capacity of community groups and individuals to carry out their own assessments of soil health and management practices in a rigorous and logical way through support of demonstration trials.

## Investment area - 3c Invasive plants and animals

Decision focus <sup>i</sup>	Examples of evidence used to inform decisions	Pest Plants				Pest Animals				Overall Trend
		1990 <sup>ii</sup>	Certainty of rating	2014	Certainty of rating	1990 <sup>ii</sup>	Certainty of rating	2014	Certainty of rating	
2013-14 performance	Outputs (against targets set as a result of funds received)	n.a.	n.a.	On target	High	n.a.	n.a.	On target	High	n.a.
Long-term strategy implementation progress	Outputs (scheduled to be completed between 2001 and 2011)	n.a.	n.a.	Below target	Very low	n.a.	n.a.	Below target	Low	● <sup>iii</sup>
Catchment Condition <sup>iv</sup>	Impact of pest plants and animals on assets. (Not available at Catchment scale.) Management systems	Poor	High	Poor	High	Poor	Medium	Poor	Medium	●

<sup>i</sup> See Appendix 1 for notes on the analytical framework (page 130), including an explanation of the decision focus and ratings.

<sup>ii</sup> Ratings for 1990 have been determined using our understanding in 2014 of the situation in 1990.

<sup>iii</sup> Extremely hard to rate, especially given that the Department of Environment and Primary Industries pest plant and animal activities have been removed from the Goulburn Broken CMA's investment processes.

<sup>iv</sup> 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.

### Catchment condition

Invasive plants and animals continue to negatively affect catchment condition. Many species have become naturalised and invade all areas of the Catchment with few, if any, areas not affected by pest plants or animals. Foxes, feral dogs and cats kill millions of native animals each year and rabbits cause erosion, compete for resources and make revegetation difficult in some areas. Pest plants out compete native species, reducing diversity.

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

In the Goulburn Broken consideration of invasive plants and animals are built in to projects and programs where possible.

### Long-term strategy implementation

The Goulburn Broken Invasive Plants and Animals Strategy was completed in October 2010, setting the high-level direction for invasive plants and animals investment in the Catchment and supporting the State Invasive Plants and Animals Policy Framework launched in late 2009. The document, along with community support, is used to identify priorities for pest management activities in the Catchment.

A key element of the strategy is the 'biosecurity approach', which emphasises the need to manage new or emerging weed species to prevent establishment of new species, as this is considered to be the most cost-effective use of limited resources. All new invasive plants and animals projects have been clearly aligned to program goals identified in the strategy. Prevention and eradication of new incursions remain the highest priorities.

### 2013-14 performance

#### Community engagement

The Department of Environment and Primary Industries invasive pests program continued to support coordinated community action during 2013-14. In consultation with community groups, targeted compliance activities supported large-scale rabbit and weed control programs, ensuring the participation of all land managers in project areas. Good engagement and peer support is the key to program success. The community group obtains funding via the Victorian Landcare Program and used local connections and communication to encourage high level of landowner participation in control activities. DEPI compliance officers support the delivery through legislative enforcement.

Priority for compliance activities is given to areas where incentive funding for pest management works is available through local community groups.

To support pest management works undertaken by private landholders, the DEPI Good Neighbour Program again provided funding in 2013-14 to ensure complementary treatment works on public land in targeted compliance areas. Good communication between DEPI and Goulburn Broken CMA allows for Good Neighbour funding to complement all pest plants and animal projects, both in and out of targeted compliance areas.

#### Planning and responding

In 2012, funding for priority pest management works on municipal roadsides was made available to rural municipalities across Victoria. This has helped to clarify longstanding confusion over the management of pests on municipal roadsides. During 2013-14, all municipalities in the Goulburn Broken Catchment developed roadside pest management plans, detailing priority roadside pest management works over the next two years. These



plans align with the Goulburn Broken Invasive Plants and Animals Strategy (2010) and have been approved by the Department of Environment and Primary Industries to ensure statewide and catchment issues are adequately and consistently addressed. Delivery of these works have varied across the different local government areas. Some have fully engaged the community groups such as Landcare, whereas others have taken a hands-off approach through engaging contractors to undertake the works.

## Works and operations

The private land public agency partnership for pest plants continued in 2013-14, with community groups accessing \$128,275 from the Victorian Landcare Grants to work in consultation with the Department of Environment and Primary Industries compliance programs. A coordinated community effort together with agency compliance action ensures a high level of landowner participation and control of priority weeds such as Gorse, Blackberry and Chilean Needle Grass.

With roadside pest management funding now available, local government participated in all DEPI compliance programs during 2013-14, treating roadside pests to complement the excellent results achieved on private land.

The management of all known sites of both State Prohibited Weed and Regionally Prohibited Weed species was a high priority. During 2013-14 a total of 135 infestations were treated, including all known infestations of the State Prohibited Weeds: Camel Thorn, Horsetail, Knotweed, Mexican Feather Grass and Water Hyacinth and the Regionally Prohibited Weeds: Artichoke Thistle, Serrated Tussock, Cape Tulip, Ragwort and Wild Garlic. Infestation levels at most sites are steadily reducing and a number of sites will be assessed next season for 'eradication' status.

Five established weed compliance projects and two established pest animal compliance projects were delivered by the Department of Environment and Primary Industries during 2013-14. These projects involved a total of 325 properties, targeting Serrated Tussock, Gorse, Blackberry and rabbits.

All projects achieved high levels of voluntary compliance and despite the large number of landholders involved, only four landholders failed to comply with a direction notice and were issued with Penalty Infringement Notices.

## Actions 2011-12, 2012-13 and 2013-14

Action		From funds received through Corporate Plan				
		Achieved <sup>i</sup>			Target	% achieved
		2011-12	2012-13	2013-14		
<b>Weed invasion</b>						
Weeds – aquatic weeds controlled/eradicated	km	76	77	3	0	-
Targeted infestations of weeds in high priority areas covered by control programs <sup>ii</sup>	ha	1,372	953	3,853	1,914	201
DEPI Biosecurity Victoria works - Targeted infestations of weeds in high priority areas covered by control programs <sup>iii</sup>	ha	14,300	9,315	12,880	12,880	100
<b>Pest animals</b>						
Area of high priority rabbit infested land that are covered by control programs <sup>ii</sup>	ha	882	2,749	4,699	2,205	213
DEPI Biosecurity Victoria works - Area of high priority rabbit infested land that are covered by control programs <sup>iii</sup>	ha	15,800	10,500	6,175	6,175	100
Area of high priority fox infested land covered by control programs	ha	60,000	27,000	26,502	25,229	105

i Achievements include those by complementary investment areas such as Biodiversity. For a full list of footnotes see Appendix 4 on page 137.

ii This includes 'Weeds - woody weed management'. (Appendix 4)

iii Works completed by DEPI Biosecurity Victoria (outside of the Corporate Plan).

## 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 Environment and 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 Environment and Primary Industries will provide support through the delivery of targeted compliance programs.

## Case study

### Woka Wolla working on country

Sand hills across Yorta Yorta country in northern Victoria and southern NSW hold important natural and cultural heritage values.

The six-year Sand Ridge Woodland Program is designed to improve and protect these values. By supporting Yorta Yorta people working on Country and creating employment opportunities in natural resource management, the program engages with public and private land managers in revegetating and regenerating native vegetation sites on and near sandhills, controlling pest plants and animals and protecting cultural heritage sites.

Amos Atkinson is a member of Woka Wolla, the Yorta Yorta Nation Aboriginal Corporation works crew, who is working on Country protecting and enhancing endangered and culturally sensitive Sand Ridge Woodland habitats.

Woka Wolla is Yorta Yorta for 'land and water'.

Amos says, 'I have a holistic approach to life. I have worked in the health sector, worked as a chef and now in natural resource management. This is where I want to be. When I have been out working in the bush I come in feeling cleansed.'

'The land has amazing power. We were doing some cultural heritage surveying up near Torrumbarry, at Richardson's Lagoon, and just being there was eerie. I have two kids and I want them to learn about our culture. When I was young no-one taught me, but through this project, and being

around elders like Uncle Col, I have learnt a lot and I want to pass this on to my kids.'

Goulburn Broken CMA's Jim Begley is proud of the relationship with Yorta Yorta Nation Aboriginal Corporation (YYNAC) and what has been achieved.

'In the last two years, the overall project has worked across 950 hectares. The Woka Wolla team has been involved in a large portion of these works, including fencing, revegetation, weed control, rabbit control, site maintenance, seed collection, cultural heritage surveys, plant propagation and vegetation surveys.'

Since private landholders manage 55 per cent of Sand Ridge Woodland, the project requires working with both public and private land managers. The Woka Wolla team members have done a great job of engaging with private landholders who have opened up and shared their knowledge of cultural sites in the sand hills and how these sites might be protected.'

The unique approach of a project that spans catchment boundaries and the state border has provided opportunity for YYNAC to develop partnerships in areas where there had previously been little engagement, and has allowed for the identification of many sand ridge woodland areas and associated cultural values that were not previously recorded or protected.

The Sand Ridge Woodland Program is funded by the Australian Government.

## Human resources (including occupational health and safety)

Compiled by: Kate Pendergast, Richard Warburton and Annie Squires

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

Decision focus <sup>i</sup>	Examples of evidence used to inform decisions	1990 <sup>iii</sup>	Certainty of rating	2014	Certainty of rating	Trend
2013-14 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	● <sup>iv</sup>
Catchment condition <sup>ii</sup>	Workforce data Management systems	Satisfactory	Medium	Good	Medium	●

i See Appendix 1 for notes on the analytical framework (page 130), 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 2014 of what the situation was like in 1990.

iv Assumed to parallel government funding trend.

#### Government investment, \$000<sup>i</sup>

2011-12	2012-13	2013-14	2014-15 <sup>ii</sup>
5,909	5,305	5,503	5,669

i Excludes Board and support committees.

ii Forecast based on estimated increases of 3.0 per cent cost (wage and super increase) on 2013-14.

#### Major strategic references

- Goulburn Broken Workforce Strategy 2013-18
- Goulburn Broken CMA Workforce Plan and Capability 2013-18
- Goulburn Broken Corporate Plan 2012-13 to 2016-17
- *Occupational Health and Safety Act 2004*
- *Public Administration Act 2004* (employment and conduct principles)
- *Equal Opportunity Act 1995*

## Background

The Goulburn Broken CMA fosters a workplace culture where professionalism and expertise valued and supported by communication and continuous improvement.

The Goulburn Broken CMA's flexible workplace arrangements address the contemporary needs of a broad staff demographic, aiming to create a sustainable, diverse, progressive and professional staff body.

Efficiencies are captured through carefully balancing internal and partner service delivery.

The Goulburn Broken CMA's workforce capability, culture and business acumen positions it well to achieve the Regional Catchment Strategy's vision and implement government policy.

## A healthy and safe organisation

The Goulburn Broken CMA emphasises Occupational Health and Safety across all aspects of the workplace, integrating Occupational Health and Safety into all operations and requiring all staff to participate in Occupational Health and Safety management and operations.

## Organisation condition

The incidence of key indicators such as bullying, absenteeism and voluntary turnover continues to be low, reflecting Goulburn Broken CMA staffs' strong sense of community, high levels of job satisfaction, and support for organisational values and strategic objectives. An engagement measure in the 2014 People Matter Survey of greater than 70 is further indication of a committed workforce aligned to achieving the organisation's vision. Workforce data for the current and previous financial years is contained in the table on page 71.

## 2011-12, 2012-13 and 2013-14 workforce data

	Goulburn Broken CMA						Comments
	2011-12		2012-13		2013-14		
	no.	%	no.	%	no.	%	
<b>Gender and employment type<sup>i</sup></b>							
Male	34	49	30	48	28	46	Reduction in the traditional field-based roles occupied by males during the year resulted in a bias towards females in the workforce. There remains a strong bias towards males at higher job classification levels.
Female	36	51	32	52	33	54	
Part time	18	25	15	24	19	32	The increasing part time nature of staff is a demonstration of commitment to a flexible workplace, however, it poses challenges to ensure consistency of service to program areas.
Full time	52	75	47	76	42	68	
Part time male	3	4	3	5	4	7	
Part time female	15	21	12	19	15	25	
Full time male	31	44	27	44	24	38	
Full time female	21	30	20	32	18	30	
<b>Total employees</b>	70	100	62	100	61	100	
Total full time equivalents <sup>i</sup>	62.9		56.6		54.5		
<b>Employment status<sup>i</sup></b>							Fixed term contract includes both Enterprise Agreement and GSERP contracted senior managers. Managers account for 32% of the contracted employees
Fixed term	35	50	24	29	25	41	
Ongoing	35	50	38	61	36	59	
<b>Employment category<sup>iii</sup></b>							Traditional field/implementation funded activities are decreasing and community engagement project activities are increasing, influencing the growth in the admin officer category that includes all project delivery staff. To enhance the representation of females in Executive and Senior Management an additional female has been added to the Executive Leadership group and to the Deputy CEO rotation program.
Executive Officers	2	3	2	3	2	3	
Senior Managers	7	10	6	10	6	10	
Admin Officers	49	70	43	69	44	72	
Field staff	12	17	11	18	9	15	
<b>Age profile (years, by tally)<sup>i</sup></b>							This profile is consistent with previous years. The average age of senior managers is 52 years; however in the Band 8 and senior executive officer classifications, the average age is 45 years.
20-24	1	1	1	1	1	2	
25-29	4	6	2	3	3	5	
30-44	35	48	31	45	29	44	
45-54	24	33	26	38	23	35	
55-59	6	8	5	7	8	12	
60-64	2	3	3	4	2	3	
65+	1	1	1	1	0	0	
Average age, years	43		44		44		
<b>Years of service<sup>ii</sup></b>							Employment growth (7%) was again less than turnover (8.2%) and 60% of departing staff had less than 5 years service.
12 months or less	9	13	0	0	3	5	
1-3 years	18	26	17	27	6	10	
3-5 years	10	14	12	19	16	27	
5+ years	33	47	33	53	36	58	
Average length of service, years	6.4		7.5		8.1		
<b>Salary distribution<sup>iii &amp; iv</sup></b>							The slight increase in the average salary was influenced by the redundancy of lower classified field employees.
<\$40,000	0	0	0	0	0	0	
\$40,000 - 59,999	14	20	12	20	6	10	
\$60,000-79,999	33	47	28	45	32	52	
\$80,000+	23	33	22	35	23	38	
Average Salary	\$72,407		\$78,328		\$82,013		
<b>Qualifications<sup>iii</sup></b>							Refer to the 'Capability, learning and development' note on page 72.
Year 12 or less	11	16	9	15	7	11	
Certificate	8	11	2	3	2	3	
Advanced Diploma/Diploma	7	10	9	15	10	16	
Degree	34	49	36	58	36	59	
Postgraduate Degree/Graduate Diploma	10	14	6	10	6	10	
<b>Turnover (total)</b>	3	4	7	11	5	8	The small turnover in 2013-14 is due to funding reprioritisation.
<b>Turnover (ongoing staff only)</b>	2	66	6	86	3	60	
<b>Exit interviews completed</b>	3	100	4	57	2	40	The nature of departures impacted on interview uptake.
<b>Absenteeism</b>	-	1.3		1.4		1.0	Absenteeism continues to be low.
<b>Training expenditure (% of salary budget)</b>	\$141,972	1.6	\$90,814	1.72	\$121,404	2.2	The Authority continues to invest in training and development for staff.

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 2013-14

iv Based on 1.0 FTE full year salary

## Long-term strategy implementation progress

The Goulburn Broken CMA Workforce Strategy 2013-18 focuses projects and deliverables for the HR business support. During 2013-14 improvement projects leadership capability project, broader capability framework, workforce planning and forecasting and constant reviews of the Goulburn Broken CMA employment value proposition (EVP).

## Occupational Health and Safety

A comprehensive annual review of the Goulburn Broken CMA Occupational Health and Safety Management System includes all Occupational Health and Safety Management System procedures and associated guidelines, forms or checklists. It also takes into account the Occupational Health and Safety Strategic Framework objectives and targets and upcoming legal or industry requirements.

The Goulburn Broken CMA's Occupational Health and Safety procedures currently meet best practice as defined by AS/NZS 4801, although these have not been certified.

## 2013-14 performance

The Goulburn Broken CMA stabilised staffing and delivery post funding decreases in 2012-13. A significant achievement was the finalisation (and approval by the Fair Work Commission) of a twenty-seven month enterprise agreement, providing certainty for management and staff of the industrial framework through to August 2016. The culture of the Goulburn Broken CMA staff was demonstrated through its patient and collective support for management to pursue the agreement through to finalisation. Other key activities undertaken to deliver against the five core strategic Workforce Strategy objectives are described below.

### Governance

Management and the Board focused on the key elements of workforce forecasting and planning. A review of capability identified current and future gaps and resolved that the Goulburn Broken CMA workforce is well positioned to meet the changing demands of a contemporary natural resource management organisation as articulated in the Regional Catchment Strategy. All human resource policies were reviewed during 2013-14

### Attraction and recruitment and labour supply and agility

Three staff were recruited to the Goulburn Broken CMA during 2013-14 to fill existing vacancies created by natural attrition or planned back-fill of leave. The Goulburn Broken CMA attracted strong fields of candidates, allowing positions to be filled by candidates who add to the existing depth of capability. Additional staff to meet short-term project and funding needs were engaged through shared service arrangements with our partner CMA's and secondment arrangements with DEPI.

## Capability building

The Capability Framework endorsed in early 2013 formed the basis for development and delivery of a Leadership Capability Development project. A pilot of fifteen staff participated in an ambitious in-house leadership program including identification of key leadership capabilities, assessment of these capabilities through a proprietary 360° Assessment Tool, identification of priority capability (to be grown across the broader management team) through to a draft Goulburn Broken CMA Leadership Learning and Development plan. The Goulburn Broken CMA is in the early stages of a cooperative project with North East and North Central CMA's to build on the Capability Framework. The project will develop and implement a shared framework to better understand and articulate the mix and depth of capability CMA staff need to work with and for our catchment communities. The project also will importantly result in more cost effective learning and development and of a higher quality.

## Participation and motivation

The collegiate approach of the workforce continued in the 2014 People Matter Survey, 100 per cent of respondents perceived that they make a contribution to the organisation's objectives, 83 and 89 per cent of respondents reported having a good relationship with peers and managers respectively, and an engagement score of 77 indicated strong staff participation and motivation. The staff also came together many times over the year to support causes, the community and each other through a range of fundraisers, social and work events.

## Planning and responding

The Workforce Strategy guided and focused effort on existing and new project work in workforce planning and succession.

## Capability, learning and development

Many Goulburn Broken CMA staff participated in a range of learning and development opportunities and the expertise of our staff across all program areas was showcased through the presentation of papers at conferences in France (Resilience) and California (Salinity), and across Australia, reflecting the breadth of the expertise from strategy to wetlands, irrigation, biodiversity and climate change. Approximately 35 per cent of staff shared their expertise and created learning and development opportunities for community and peers, with all promoting and reinforcing the depth of expertise that Goulburn Broken CMA staff have.

## Supporting our community

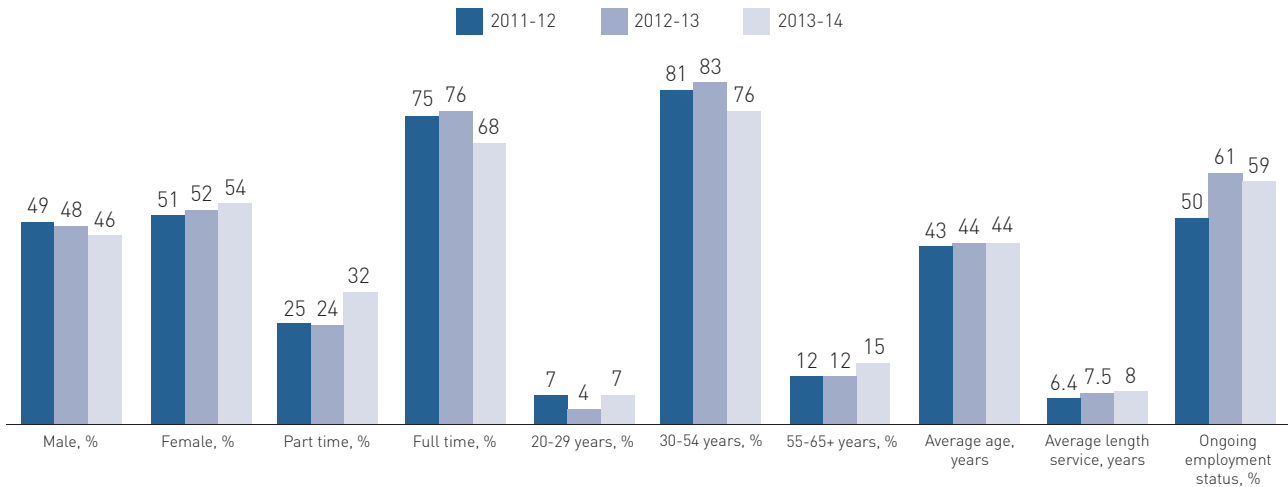
Staff continued to support the partnership with Wilmot Road Learning Club. The number of staff involved doubled, allowing greater certainty of the support the CMA intends to offer one local primary school.

It often goes unreported but many Goulburn Broken CMA staff are actively involved in their communities outside of work. Throughout our Catchment, we have so many staff giving generously of their time to emergency services, school councils, committees of management and boards, sporting clubs, kinders, Landcare and the list goes on. This connectedness to community enhances the engagement networks and capacity of our staff in delivery of the Goulburn Broken B CMA vision and strategy.

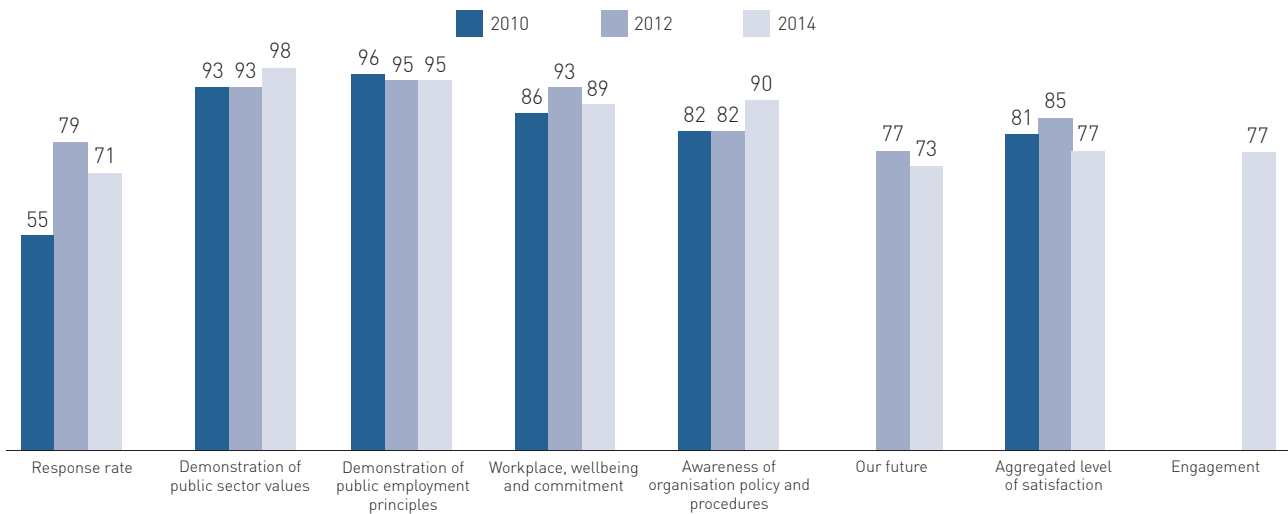
## Our staff

A list of all Goulburn Broken CMA staff employed for all or part of 2013-14 is on the inside of the back cover  
Management Team and Program Manager profiles are listed on page 75.

**Goulburn Broken CMA people profile**



**People Matter (staff) survey results**  
% of staff that responded 'highly in agreement'



## 2013-14 Occupational Health and Safety performance

A key Occupational Health and Safety focus in 2013-14 was on high-risk field-site hazard inspections, which found a high level of compliance when developing safe operating procedures for high risk work.

The Goulburn Broken CMA Occupational Health and Safety Policy statement and Occupational Health and Safety procedures continued to be reviewed in consultation with the workforce, ensuring that Occupational Health and Safety operations reflect best practice and changes to workplace consultation requirements as part of the *Occupational Health and Safety Act 2004* and *OHS Regulations 2007*.

The offer of free flu immunisations was taken up by 43 per cent of staff.

Refer also to the 2013-14 Occupational Health and Safety performance table on page 74.

### Occupational health and safety statistics summary

	2011-12	2012-13	2013-14
Total incidents, number	15	10	8
Days lost (no. of staff)	0	1	0
Hazards reported, number	1	1	1
Lost time injury days	0	3	0
Occupational health and safety committee meetings (excluding tool box meetings)	5	5	5



## 2013-14 Occupational Health and Safety (OHS) performance

Outcome	No.	Indicator	Target 2013-14	Progress 2013-14
Ensuring a working OHS Management System	1	Current and relevant OHS Policy and Procedures	Goulburn Broken CMA OHS Policy Statement	Achieved. Endorsed and distributed.
			Annual Review of Goulburn Broken CMA OHS Procedures	Achieved. Completed and published.
	2	Standard Safe Work Procedure Development	100 per cent 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. No new Safe Work Procedures developed. Existing documents reviewed.
		Development and implementation of Safe Work Method Statement Documents	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. No new Standard Safe Work Method Statement Procedures developed. Existing documents reviewed.
			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.	Mostly achieved. 102 documents recorded. 97.8 per cent documents recorded within one week of works commencement.
	3	Workplace inspections conducted	100 per cent of workplace inspections conducted as per inspection schedule.	Achieved. Quarterly office inspections across the two offices; bi-annual depot inspections completed at the three depots; twelve external worksite inspections completed.
4	Workplace inspections actions completed	100 per cent of actions arising from workplace inspections completed.	Achieved.	
5	Evacuation and emergency procedures	100 per cent of emergency drills conducted as per annual schedule.	Achieved.	
Proactive OHS reporting	6	Incident reporting	100 per cent of Incident Reports received are acted on by OHS Manager.	Achieved. Completed and actioned.
	7	Hazard reporting	100 per cent of Hazard Reports received are acted on by Workgroup Supervisor.	Achieved. Completed and actioned.
	8	Lost time injuries	Report monthly to the Goulburn Broken CMA Board.	Achieved.
Fostering a safe work culture	9	Mandatory OHS Training	100 per cent of Mandatory OHS Training Delivered.	Progressed. New OHS Training Framework developed and to be rolled out in 2014-15.
	10	Display of Safety Information	100 per cent OHS Safety Information displayed on Noticeboards and Goulburn Broken CMA Portal	Achieved. Part of Annual OHS Procedure review. New versioning system being implemented on the OHS Policy Library.
OHS Consultation and Management	11	OHS Representatives (HRS)	Election of Health and Safety Representatives as per OHS Consultative Procedure No. 3	Achieved. Tenure of all three Designated Workgroups HSR's completed and HSR's in place during 2013-14.
	12	OHS Committee Meetings	Target of 5 OHS Meetings per financial year conducted with a quorum.	Achieved. Tenure of OHS Committee completed in 2013-14 and new committee put in place.

### What's next?

Ongoing implementation of the Workforce Strategy includes an emphasis on capability, culture and performance. Continuation of the implementation of the ConnX human resource information system, which experienced external IT problems in its pilot stage implementation

### Occupational Health and Safety

Goulburn Broken CMA will continue to achieve its occupational health, safety objectives by developing and implementing appropriate policies and procedures that document standards and guide managers, supervisors and employees in carrying out their responsibilities in:

- identifying hazards and risks to health and safety associated with tasks and activities carried out by Goulburn Broken CMA
- assessing the degree and level of risks arising from hazardous tasks or activities
- selecting, implementing and maintaining appropriate measures to control risks to health and safety
- consulting with employees and their representatives on matters that may affect their health and safety
- identifying, developing and providing appropriate information, instruction and training to equip managers, supervisors and employees with the knowledge and skills necessary to meet their responsibilities
- developing, implementing and monitoring plans to put Goulburn Broken CMA health and safety policies and procedures into effect.

The real-time capture of safe work procedure documents is being investigated, using smartphone camera and remote email technology.

# Goulburn Broken CMA Management Team and Unit Managers

## Corporate

**Aaron Findlay**, AdvDipIT (Network/Engineering) – Information and Communications Technology Manager  
Oversees information and communication technology services.

**Chris Norman**, BAppSc, GradDip (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.

**Fiona Lloyd**, GradDip (Journalism), BA (Teaching) – Communications and Marketing Manager

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

**Jason Head**, BBus (Accounting) – Assistant Business Manager (until 31st December 2013)

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

**Kate Pendergast**, BBus (Marketing), Cert IV Workplace Training and Assessment – 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 and overseas organisational development, environmental sustainability.

**Richard Warburton**, DipOHS, Cert IV Workplace Training and Assessment – 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**, DipBus (HR), Cert III Business Administration – 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 (Hons), FCA (Ireland), CA, CMIIA, CIA – 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

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

Responsible for funding and investment processes and provides strategic advice to the Chief Executive Officer on monitoring, evaluation and reporting and managing the implementation of the Regional Catchment Strategy.

**Mark Turner**, BAppSc (Natural Resource Management), GradCert (River Health) – RCS Implementation Manager (from 16th December 2013)

Coordinates and supports the formulation and implementation of the detailed plan for the Regional Catchment Strategy implementation, working with senior management and relevant project and support staff.

## Land and biodiversity

**Carla Miles**, BAppSc (Hons) (Parks, Recreation & Heritage), Cert II Bush Regeneration – Biodiversity Strategy Manager

Manages the development, integration, review and implementation of the Biodiversity Strategy.

**Mark Cotter**, BAgSc (Hons), DipProjMan't, GradCertAppSc (Maths) – Land Health Manager (retired 20th September 2013)

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

**Rhiannon Apled** BSc (Conservation, Biology and Ecology) (Hons) - Land Health Manager (from 1st January 2014)

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

**Steve Wilson**, MEnvMgmt, BAppSc (Parks, Recreation and Heritage), – Land and Biodiversity Program Manager

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

**Tony Kubeil**, BSc – Landcare and Communities Manager

Supports Landcare groups in the region and coordinates projects including development and implementation of the Regional Landcare Strategy.

## River health and flood protection

**Geoff Earl**, BE (Civil) – Environmental Water Flow Coordinator

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.

**Jim Castles**, BAppSc (Natural Resource Management) - River Health Implementation Manager (higher duties from 16th December 2013 to 30th June 2014).

Oversees the river health implementation programs, leading a team of field staff and provide senior professional advice and guidance to the CEO and Board on the implementation program.

**Mark Turner**, BAppSc (Natural Resource Management), GradCert (River Health) – River Health Implementation Manager (1st July 2013 to 15th December 2013)

Oversees the river health implementation programs, leading a team of field staff and provide senior professional advice and guidance to the CEO and Board on the implementation program.

**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**, MEnvSc, BSocSc, GradDip (Environmental Management) – Strategic River Health Manager (higher duties continued from 28th 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, Friend of the Peter Cullen Trust – Strategic River Health Manager (extended leave from 1st April 2014)

Provides senior professional advice and guidance to the CEO and Board on policies, programs, implementation strategies, research activities, monitoring, and related projects on river health.

## Sustainable irrigation

**Carl Walters**, Assoc Dip (Civil), MIEAust – Sustainable Irrigation Program Manager

Provides executive liaison with the Sustainable Irrigation Program Advisory Group 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.

**Helen Murdoch**, BEnv Sci, Dip (Frontline Management) - Acting Sustainable Irrigation Program Manager (25th September to 8th November 2013)

Provides executive liaison with the Sustainable Irrigation Program Advisory Group 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.

## Case Study

### Sammi the Squirrel Glider and the Fairley Tree

Goulburn Broken CMA has been a long-time supporter of the Fairley Leadership Program with a number of staff having participated in the program during the past decade.

Goulburn Broken CMA ecologist Dr Jenny Wilson participated in the 2013 program. Her great knowledge of the region's unique flora and fauna and her artistic flair were instrumental in the 2013 Fairley cohort's development of a children's book 'Sammi the Squirrel Glider and the Fairley Tree'.

The book tells the story of Sammi's quest for the 'perfect home' in one of the hollows in a big old red gum by the Goulburn River. Jenny's full-page illustrations accompany the simple rhyming text, which is aimed at early readers.

The cohort received a \$6,000 grant from The Hugh Williamson Foundation, a philanthropic foundation that is working with community leadership programs and the Bug Blitz™ Program to raise awareness of biodiversity in the community, particularly among young people.

'We (the 2013 Fairley Leadership Cohort) thought an illustrated children's book would be a great way to highlight, in a fun and informative way, how important tree hollows are to the region's native wildlife,' Jenny said.

As well as Sammi the Squirrel Glider, Locky the Cocky, Bonny the Brush-tailed Phascogale, Fred the Feather-tail Glider, Gayle the Galah and Wendy the Wood-duck feature in the book.

A copy of Sammi the Squirrel Glider and the Fairley Tree was sent to all primary school and public libraries in the region. Sales from the book supported a participant from the environment/arts sectors to participate in the 2014 Fairley Leadership Program.

## Environmental footprint

Compiled by Annie Squires

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

Decision focus <sup>i</sup>	Examples of evidence used to inform decisions	1990 <sup>ii</sup>	Certainty of rating	2014	Certainty of rating	Trend
2013-14 performance	Outputs (against targets set as a result of funds received)	n.a.		Below target	High	n.a.
Long-term strategy implementation progress	Outputs (scheduled to be progressed between 2012 and 2014)	n.a.		Below target	High	● <sup>iii</sup>
Organisational condition <sup>iv</sup>	Energy consumption Vehicle use Management systems	Very Poor	Low	Poor	Low	●

i See Appendix 1 for notes on the analytical framework (page 130), 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 2014 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.

#### Government investment, \$000

2011-12	2012-13	2013-14	2014-15 <sup>i</sup>
20	23	25	25

i Forecast is based on funding advice at July 2014.

#### Organisation condition

The following table summarises our greenhouse gas inventory, including direct emission sources such as vehicle fleet fuel and indirect sources such as purchased electricity, business travel and waste.

#### Major strategic references

- Goulburn Broken CMA Organisational Environmental Footprint Policy 2011
- Goulburn Broken CMA Organisational Environmental Footprint Strategy and Action Plan 2012-2014
- Goulburn Broken CMA Climate Change Integration Strategy
- National Greenhouse Accounts Factors – Department of Climate Change and Energy Efficiency
- Greenhouse Gas Protocol ([www.ghgprotocol.org](http://www.ghgprotocol.org))

#### Background

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

Data collection for greenhouse gas emissions calculations commenced in 2006-07, our base year for reporting and comparisons.

All Goulburn Broken CMA environmental footprint initiatives and activities of the Goulburn Broken CMA are guided by the Organisational Environmental Footprint Policy 2011 and Organisational Environmental 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 and in line with current carbon accounting practices.

Implementation of the action plan is guided by a working group that is supported by the sustainability coordinator. Internally, the program is promoted as 'Reducing our Footprint'.

## Office-based environmental impacts reporting

Sustainability report	2006-07 (base year)		2012-13		2013-14	
	Consumption	GHG emissions (t CO2-e)	Consumption	GHG emissions (t CO2-e)	Consumption	GHG emissions (t CO2-e)
<b>Direct emissions (Scope 1)</b>						
Petrol for vehicles (L)	74,711	171	21,024	48	10,947	25
Diesel for vehicles (L)	66,127	178	114,651	309	110,385	297
LPG for vehicles (L)	8,936	14	15,404	24	9,359	15
Distance travelled by fleet vehicles (km)	Not avail.		1,853,193		1,476,987	
<b>Total Scope 1</b>		<b>363</b>		<b>381</b>		<b>337</b>
<b>Indirect emissions (Scope 2)</b>						
Electricity (kilowatt hour)	147,930	179	140,280	164	150,217	175
<b>Total Scope 2</b>		<b>179</b>		<b>164</b>		<b>175</b>
<b>Optional emissions (Scope 3)<sup>i</sup></b>						
Electricity (transmission & distribution losses) (kWh)	147,930	22	140,280	21	150,217	22
Flights (km)	Not avail.		74,182	21	121,583	39
Waste - landfill (kg)	8,680	9	408	1	310	1
Water consumption <sup>ii</sup> (kL)	Not avail.		430	1	735	2
Paper consumption (reams)	514	2	668	3	768	3
Petrol (extraction, production, etc.) (litres)	74,711	14	21,024	4	26,173	2
Diesel (extraction, production, etc.) (litres)	66,127	13	114,651	23	213,116	23
LPG (extraction, production, etc.) (litres)	8,936	1	15,404	2	18,200	1
<b>Total Scope 3</b>		<b>61</b>		<b>76</b>		<b>93</b>
<b>Total Scope 1 + 2</b>		<b>542</b>		<b>545</b>		<b>512</b>
<b>Total Scope 1 + 2 + 3</b>		<b>603</b>		<b>621</b>		<b>605</b>
Offsets purchased (air travel)				3		

<sup>i</sup> Scope 3 emissions are indirect emissions, such as extraction and production of fuels, transport related activities in vehicles not owned or controlled by the Goulburn Broken CMA, waste disposal, and electricity-related activities (eg. transmission and distribution losses) not covered in Scope 2. Reporting of Scope 3 emissions is optional under the international Greenhouse Gas Protocol.

<sup>ii</sup> Data for previous year includes Yea and partial year for Shepparton, current year includes both offices.

## Long-term strategy implementation progress

Since the initial data collection in 2006-07, the Authority's overall emissions report shows a downwards trend with continued improvements in vehicle emissions (our biggest greenhouse gas emissions source), waste management and paper use.

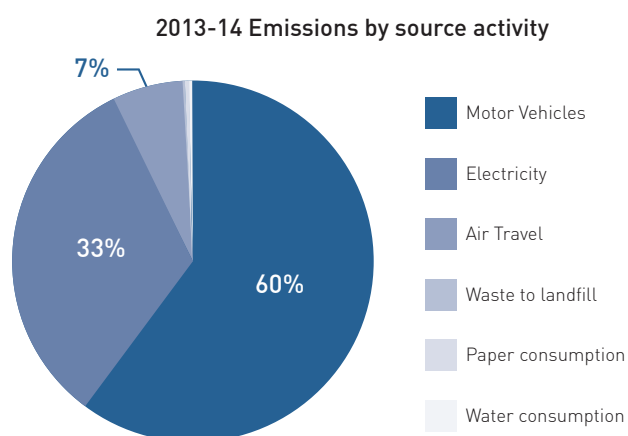
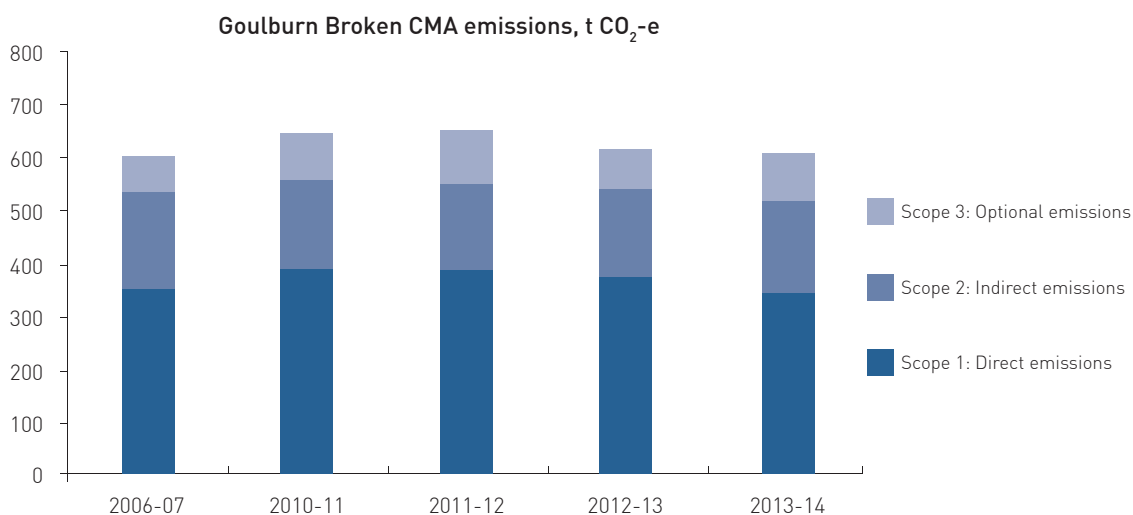
Achieving significant reductions in energy use continues to be a challenge.

## 2013-14 performance

Total emissions were reduced slightly during 2013-14, primarily due to reduced vehicle travel resulting in lower fuel use. Total GHG emissions are now at 2006-07 levels.

While electricity emission reduction was a target for 2013-14, total electricity use rose slightly due to faulty sensors in the under building car park at the Shepparton office resulting in a significant rise in power use for that quarter. This overshadowed reductions made in other areas and progress towards target.

Flight emissions rose due to international travel by several staff members.



## Organisational Environmental Footprint Strategy and Action Plan progress

Emissions area	Target	Current value	Progress
Incorporate environmental considerations into business	Develop procedures for energy, waste, water, vehicles & paper	Energy & Water draft.	Below target
GHG emissions per FTE	Reduce by 20% compared to 2006-07	16% less than 2006-07	Below target
Electricity consumption	Reduce by 20% compared to 2006-07	1.8% less than 2006-07	Well below target
Reduce paper use per FTE to 2006-07 levels	Reduce paper use per FTE to 14.2 A4 equivalent reams	15.8 A4 equivalent reams per FTE	Below target
Offset air travel emissions	100% of flights offset	10% of flights offset	Well below target
Reduce average vehicle fleet emissions	0.20 tonnes CO <sub>2</sub> -e per 1000 kilometres	0.24 tonnes CO <sub>2</sub> -e per 1000 kms	Below target
Reduce waste to landfill per year	10 kg per FTE	8.1 kg per FTE	Exceeded target
Increase recycling rate	90% of waste recycled	82% of waste recycled	On target
Integrate environmental considerations in purchasing	Develop procedures for purchasing	Sustainable Purchasing pending approval.	On target

## What's next?

Electricity emission reduction will continue to be a focus for 2014-15.

Paper use increased during 2013-14 and the source of this rise is being investigated. Emissions from paper fell due to increased use of 100 per cent recycled paper in all copiers and printers.

Review of fleet vehicle mix to investigate source of rise in average emissions.

The draft sustainable purchasing procedures were pending approval in July 2014.

Reducing our Footprint activities continue to be promoted to and supported by staff and management.



## Governance

Compiled by Stan Gibney

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

Decision focus <sup>i</sup>	Examples of evidence used to inform decisions	1990 <sup>ii</sup>	Certainty of rating	2014	Certainty of rating	Trend
2013-14 performance	Corporate Plan key performance indicators <sup>iii</sup> Compliance <sup>iv</sup>	n.a.		On target	High	n.a.
Long-term strategy implementation progress	Corporate Plan key performance indicators <sup>v</sup> Compliance <sup>iv</sup>	n.a.		On target	Medium	● <sup>vi</sup>
Organisational Condition	Efficiency ratios Management systems: - legislative and funding backing - policies and procedures - communities' capacity <sup>vii</sup>	n.a.	Medium	Satisfactory	Medium	●

i See Appendix 1 for notes on the analytical framework (page 130 including an explanation of the decision focus and ratings).

ii Ratings for 1990 have been determined using our understanding in 2014 of the situation in 1990.

iii See Corporate Plan performance areas, indicators, targets and progress table page 95.

iv See performance of statutory responsibilities as a Victorian State Authority and Employer page 86.

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 'Community engagement' section page 18.

iv Ratings for 1990 have been determined using our understanding in 2014 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.

#### Government investment, \$000

2011-12	2012-13	2013-14	2014-15 <sup>i</sup>
1,516	1,625	1,407	1,056

i Forecast is based on funding advice at July 2014.

#### Major strategic references

- Goulburn Broken Corporate Plan 2013-14 to 2017-18
- Governance Guidelines for Department of Environment and Primary Industries guide to good governance – board members

## 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
- Insurance 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 and communication 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;
- 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 Goulburn Broken CMA to undertake, record, communicate and report on its business activities undertaken throughout the Catchment;
- the Goulburn Broken CMA is committed to minimise 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?

The Goulburn Broken CMA is a mature organisation with an optimum corporate structure managing a revenue base of \$49.5 million in 2013-14. The key challenges in the short term continue to be:

- maintaining an optimum corporate structure in response to the differing requirements of investors and the Board for reporting information; and
- the ever increasing challenge to minimise the cost of corporate administration to deliver more dollars for onground 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 the strategic objectives under the recently endorsed Goulburn Broken Regional Catchment Strategy;
- 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 retain people with specialist skill sets required to support our Statutory Obligations, in the area of Environmental Water Management, 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
- establishment of a Finance Committee to spend greater analysis on financial reporting issues.

### Business development

- support the implementation of the Goulburn Broken Regional Catchment Strategy 2013-2019

- seek new investors willing to make major investments in natural resource management priorities of the Catchment's six social-ecological systems, aligned to the strategic objectives of the Goulburn Broken Regional Catchment Strategy 2013-2019
- develop the Goulburn Broken CMA Monitoring, Evaluation and Reporting Strategy aligned to the Goulburn Broken Regional Catchment Strategy 2013-2019 and incorporating the agreed suite of efficiency and effectiveness measures.

### Human Resources

- work in conjunction with North Central and North East CMA's through an Memorandum of Understanding arrangement to implement the Capability Framework developed by the Goulburn Broken CMA in 2013.
- Finalise and implement the leadership development program across the organisation consistent with the Capability Framework
- Integrate Workforce Planning processes developed in 2013 into the broader business planning cycle
- Continue to work to resolve integration issues of the ConnX employee self service system to maximise benefits to staff and organisation.

### Information and communication technology

- Complete Information and Communication Technology Strategy.
- Migrate suitable ICT services to the Microsoft Office 365 Cloud platform.
- Implement the Enquire grants, contract and project management system.
- Review the GIS support ICT provides to the organisation as part of the organisational review.

### Marketing and communication

- implementation of approved Community Engagement and Communications and Marketing Strategies.
- support for implementation of the Regional Catchment Strategy in each of the six social-ecological-systems.
- upgrade of design and security of the Goulburn Broken CMA website.
- ongoing stakeholder analysis and review.
- embed community engagement and communication and marketing activities in all programs/projects.
- celebrate success via a coordinated communication campaigns.

### 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 6 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 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 \$49.5 million was sourced from Regional, State and Commonwealth Government sources in 2013-14. 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.

All works undertaken are in line with State, Murray-Darling Basin and National strategies.

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

### Catchment and Land Protection (CaLP) Act 1994

The responsibilities of the Goulburn Broken CMA as they relate to the *CaLP Act 1994* are as follows:

- prepare, coordinate, monitor and review the Regional Catchment Strategy
- prepare and submit an annual report on the condition and management of land and water resources in the region
- prepare and submit a corporate plan to the Minister by 30 April each year
- comply with the Statement of Obligations.

In performing its functions and providing its services an authority shall, in a manner consistent with relevant government policies, frameworks, strategies, plans and guidelines:

- a facilitate and coordinate the management of catchments in an integrated and sustainable manner, including as it relates to land, biodiversity and water resources
- b take a sustainable approach by balancing social, economic and environmental outcomes
- c plan and make decisions within an integrated catchment management context:
  - recognising the integral relationship between rivers, their catchments, coastal systems, and estuary and marine environments
  - recognising the integral relationship between the land – its soil, water, vegetation and fauna – and associated natural ecosystems

- recognising the need to foster the resilience of natural assets, including land, biodiversity and water resources, to climate change
  - using the best available scientific information
  - targeting investment to address priorities and deliver maximum improvement in resource condition of catchments, land, biodiversity and water resources.
- d provide opportunities for community engagement in the integrated management of catchments and natural assets, including land, biodiversity and water resources
  - e develop strategic partnerships with relevant stakeholders including public authorities and government agencies
  - f promote and apply a risk management approach that seeks to protect, enhance and restore natural assets and reduce the impact of climate change
  - g promote and adopt an adaptive approach to integrated catchment management, including continuous review, innovation and improvement
  - h manage business operations in a prudent, efficient and responsible manner.

### Water Act 1989

Under the *Water Act 1989*, the Goulburn Broken CMA aims to reduce the impact of flood damage to new buildings, help conserve and preserve flora, fauna and habitat in designated waterways, and to reduce water quality decline. This is done by providing:

- permits to construct and operate works on a waterway, compliance and community education
- resources to planning permit referrals for developments within a flood prone area
- responses to applications for flood levels, flood risk reports and flood information before development
- flood planning information and advice to councils, state emergency services, developers and others
- flood response action plans, including collection of flood information during and after a flood, and assistance with emergency planning and flood warning
- flood data management.
- comply with the Statement of Obligations.

## 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.

### 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 Craven and Weston met the criteria of 'independent' member)

1 July –30 September 2013

- John Craven (Chair)
- Murray Chapman
- Ailsa Fox
- Peter Ryan
- Ross Runnalls

24 October 2013 - 30 June 2014

- John Craven (Chair until 31 May 2014)
- Adrian Weston (Chair 1 June 2014)
- Ailsa Fox
- Ross Runnalls
- Murray Chapman as Ex Officio

#### *Remuneration Committee*

1 July – 30 September 2013

- Alexander (Sandy) MacKenzie (Chair)
- Michael (Mike) Dalmau
- Russell Pell
- Peter Ryan
- Catherine (Rien) Silverstein

24 October 2013 - 30 June 2014

- Alexander (Sandy) MacKenzie (Chair until 31 May 2014)
- Catherine (Rien) Silverstein
- Michael (Mike) Dalmau (Chair 1 June 2014)
- Lisa McKenzie
- Murray Chapman as Ex Officio

#### *Finance Committee*

24 October 2013 - 30 June 2014

- Ross Runnalls (Chair- current)
- John Craven
- Alexander (Sandy) MacKenzie
- Michael (Mike) Dalmau
- Murray Chapman as Ex Officio

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, Murray Chapman, 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.

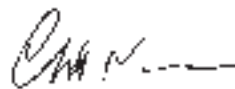


Murray Chapman

**Chair**

### Insurance Attestation

I, Chris Norman, certify that the Goulburn Broken Catchment Management Authority has complied with the Ministerial Direction 4.5.5.1 – Insurance



Chris Norman

**CEO**

## Board directors and officers

for the financial year ended 30 June 2014



Board directors (L-R) Chris Norman (CEO), Ross Runnalls, Ailsa Fox, Alexander (Sandy) MacKenzie, Murray Chapman, Michael (Mike) Dalmau, Lisa McKenzie, Adrian Weston, John Craven. Absent: Catherine (Rien) Silverstern

### Murray Chapman - Chair (Goomalibee)

Murray is a partner in a family farm at Goomalibee and a member of local community organisations. He 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.

### Dr 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 former 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.

### Michael '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

and On Water Management Plan Implementation 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.

### Ailsa Fox (Merton)

Ailsa is a primary producer of many years with strong past involvement in the VFF 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, Rural Skills Australia and the North Central Rural Financial Counselling Service. Ailsa is the current Chair of Administrators for the Rural City of Wangaratta. 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 and is coordinator of 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 Federal Government natural resource management programs. Sandy has experience in governance, natural resource management and community education/engagement and was the founding principal of Orange Agricultural College (Charles Sturt University).



### 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 near Benalla 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.

### Catherine 'Rien' Silverstein (Orrvale)

Rien is a primary producer and self-employed as a partner of Silver Orchards, is a past president of VFF-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.

### Lisa McKenzie (Shepparton)

Lisa McKenzie lives in Shepparton and is the CEO of the Community Fund Goulburn Valley. She has extensive work and board experience and was formerly the Editor of the Country News and the executive officer of the Fairley Leadership Program. She ran a communications and PR consultancy for a decade with many of the region's key organisations among clients, including the GB CMA. Lisa is chair of the Goulburn Murray LLEN; chair of the Shepparton Local Advisory Group for the Federal Better Futures Local Solutions Project (a National Place Based initiative); a member of the La Trobe University Shepparton Regional Advisory board; and a member of the executive of the Shepparton Lighthouse Project. She has played a role in the establishment of a range of community initiatives including RiverConnect and the Sampson Leadership Scholarship.

### Adrian Weston (Rushworth)

Adrian, who previously ran a dairy farm, owns and operates an irrigated prime lamb and cropping farm enterprise at Rushworth. He is a Campaspe Shire Councillor, representing the the Waranga Ward. Adrian has a long-standing interest in natural resource management and believes the greatest challenge facing the catchment community is balancing the demand for increased productive use of land (soil) and water resources with protecting and improving the condition of the region's unique natural environment. He says the key to building the Catchment's environmental and social resilience relies on the willingness of business, industry and communities to embrace and adapt to change.

## Board members attendance record at meetings

July 2013 to September 2013			
Board member	Board meetings (3 held)	Audit, Risk and Compliance Committee (1 held)	Remuneration Committee (1 held)
Peter Ryan (Chairman)	2	0	0
Murray Chapman (Deputy Chair)	3	1	-
John Craven	3	1	-
Michael (Mike) Dalmau	3	-	1
Ailsa Fox	3	1	-
Alexander (Sandy) MacKenzie	3	-	1
Russell Pell	3	-	1
Ross Runnalls	2	1	-
Catherine (Rien) Silverstein	3	-	0

October 2013 – June 2014				
Board member	Board meetings (8 held)	Audit, Risk and Compliance Committee (3 held)	Remuneration Committee (4 held)	Finance Committee (4 Held)
Murray Chapman (Chair)	8	1	4	4
John Craven	7	3	-	4
Michael (Mike) Dalmau	8	-	4	4
Ailsa Fox	7	3	-	-
Alexander (Sandy) MacKenzie	8	-	4	4
Ross Runnalls	8	2	-	3
Catherine (Rien) Silverstein	4	-	1	-
Lisa McKenzie	7	-	2	-
Adrian Weston	7	3	-	-

Catherine (Rien) Silverstein retired as a Board Director effective from 24 April 2014.



## 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	2013-14 issues and status
<b>Statutory Authority</b>		
<i>Catchment and Land Protection Act 1994</i>	Prepare, coordinate, monitor and review of Regional Catchment Strategy.	Regional Catchment Strategy for 2013-2019 was gazetted on 16 May 2013
	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."	2012-13 Annual Report submitted on time and 2013-14 on schedule
	Corporate Plan to be submitted to Minister under the CALP Act by 30 April annually.	Submitted to Minister by 30 April 2014.
	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 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 at 168 Welsford Street, Shepparton.
	Review funds at each (monthly) Board meeting. Policy for investment as per the Trustee Act 1958.	Goulburn Broken CMA continued to invest funds with TCV at call and on term deposits in excess of working capital requirements in line with DTF's policy on Centralisation of Borrowing and Investment Activities. DTF's policy only permits GB CMA to invest a maximum of \$2 million with Authorised Deposit-Taking Institutions.
	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 the accounting treatment. Board reviews monthly.
	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 Environment and Primary Industries. Code of conduct for public sector employees adopted.
	Waterway management responsibilities	Goulburn Broken CMA was established as a body corporate under the Catchment and Land Protection Act and then established as an Authority under the Water Act with delegated waterway management, floodplain management and drainage functions under Part 10 of the Water Act 1989.
<i>Public Administration Act 2004</i>	Ensure operations of Board comply with Part 5.	Policy and Procedures ensure that obligations and best practice approaches are built into current HR operations and practices.

Act or policy	Board's major tasks	2013-14 issues and status
<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>The 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 \$26.50 which is non-refundable and an access cost which covers the cost to Authority for providing the information.	<p>The Freedom of Information Act 1982 allows members of the public a right of access to documents held by the Goulburn Broken CMA subject to certain exemptions under the Act.</p> <p>Freedom of Information requests are made in writing describing the documents requested and including payment of the \$26.50 application fee. Further charges may be payable. Freedom of Information fees and charges are not subject to GST.</p> <p>Requests to the Goulburn Broken CMA should be sent to Freedom of Information Officer, PO Box 1752, Shepparton, Vic 3632. The telephone contact number is (03) 5822 7700; enquiries can be emailed to reception@gbcma.vic.gov.au.</p> <p>Three Freedom of Information Requests were received in the year. Of the three applications, one was granted "access in part", and two were advised that "no documents existed". There were no applications for review of FOI decisions to the FOI Commissioner or VCAT.</p>
<i>Protected Disclosures Act 2012.</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 8 for policy, page 142)

Act or policy	Board's major tasks	2013-14 issues and status
<p><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>	<p>Goulburn Broken CMA has delegated floodplain management functions and is the floodplain management authority under the Planning and Environment Act, Subdivisions Act and Building Regulations where various types of application for development are referred. Furthermore, functions require direct advice to be provided to anybody or person under the Water Act.</p> <p>Goulburn Broken CMA is a referral authority for applications from Department of Primary Industries (Mineral Resource Act, 1990) for work plans on floodplain areas.</p> <p>Goulburn Broken CMA is a 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>	<p>The Goulburn Broken CMA processed 788 referral and advice application relating to floodplain management and 78 applications for works on waterways for 2013-14.</p>
	<p>Board is advised of application refusals at each (monthly) meeting.</p>	<p>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.</p>
	<p>Local government can request advice but are not required to implement it.</p>	<p>Advice has been provided where appropriate.</p>
<p><i>Privacy Act 2000</i></p>	<p>Ensure details of individuals are protected.</p>	<p>Goulburn Broken CMA has reviewed the Privacy Procedure (in accordance with the Act) on how personal information is stored and under what circumstances it can be accessed or released to third parties.</p>
<p><i>Flora and Fauna Guarantee Act 1988</i></p>	<p>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.</p>	<p>The Goulburn Broken CMA continues to support the implementation of action statements and recovery plans for threatened flora and fauna by the Department of Environment and Primary Industries.</p>
<p><i>Environmental Protection Act 1970</i></p>	<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>The Goulburn Broken CMA continued to support the implementation of the Regional Goulburn Broken Waterway Incident Agreement.</p>

Act or policy	Board's major tasks	2013-14 issues and status
<i>Forest Act 1958</i>	Liaise with the Department of Sustainability and Environment as required.	For waterways in areas managed by the Department of Environment and Primary Industries 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 22E 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.
<i>Victorian Industry Participation Policy Act 2003</i>	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.	One contract in excess of \$1 million was entered into during the year for employment of horticultural labour affected by the Fruit Industry crisis in Goulburn Valley. Recruitment was organised by local recruitment agency. The contract met the VIPP terms for local industry involvement as 99% of the cost was for local labour whilst other expenditure such as clothing, sunscreen etc ; was sourced from local suppliers.
Data Vic Access Policy (2012)	The DataVic Access Policy provides direction on the release, licensing and management of Victorian Government data so that it can be used and reused by the community and businesses.	Goulburn Broken CMA has not supplied any data sets to DataVic during 2013-14.

Act or policy	Board's major tasks	2013-14 issues and status
<b>Employer</b>		
<i>Fair Work Act (Registered Organisations) Act 2009</i>	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 Goulburn Broken CMA Enterprise Agreement 2013-16 was formally approved on 28 May 2014.
<i>Equal Opportunity Act 1995</i>	Annual data return reporting gender, diversity and complaints lodged and investigated.	The Goulburn Broken CMA is an equal opportunity employer. Kate Pendergast is the sexual harassment contact officer. No complaints were received in the reporting period. Of the Goulburn Broken CMA staff, 54 per cent are female and 46 per cent male (see page 71).
<i>Long Service Leave Act 1992 Victorian Long Service Leave Regulations 2005</i>	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.
<i>Occupational Health and Safety Act 2004</i>	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  Victorian Managed Insurance Authority Act 1996	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 Chair of the Goulburn Broken CMA, is consistent with the Australian/New Zealand Risk Management Standard. The attestation that the Goulburn Broken CMA has insurance is consistent with the Victorian Managed Insurance Authority Act 1996 requirements.
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 Protected Disclosure Act 2012

Refer to Appendix 8, page 142, for disclosure against and compliance with the Protected Disclosures Act 2012.

### Available information

- declarations of pecuniary interests have been duly completed by relevant officers of the Goulburn Broken CMA.
- details of publications produced by the Goulburn Broken CMA about the activities of the Authority and where they can be obtained.
- details of changes in prices, fees, charges, rates and levies charged by the Goulburn Broken CMA for its services, including services that are administered.
- details of any major external reviews carried out in respect of the operation of the Goulburn Broken CMA.
- details of any other research and development activities undertaken by the Goulburn Broken CMA that are not otherwise covered either in the report of operations or in a document which contains the financial report and report of operations.
- details of overseas visits undertaken including a summary of the objectives and outcomes of each visit.
- details of major promotional, public relations and marketing activities undertaken by the Goulburn Broken CMA to develop community awareness of the services 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.*



## CaLP Act requirements (Headline theme reports)

This section follows a similar approach to that used in recent years by the Goulburn Broken CMA in reporting on its obligation under section 19B of the *Catchment and Land Protection Act 1994*. The structuring according to 'headline themes' in this section follows previous guidelines established by the Department of Sustainability and Environment (now DEPI) in promoting statewide consistency.

Generally, this annual report promotes accountability by structuring information in alignment with the Goulburn Broken CMA's corporate plan. It is expected that corporate plan and headline theme reporting requirements will merge over the next few years. The following table shows how these two requirements relate now.

Headline theme	Goulburn Broken CMA investment area	Details page
Biodiversity	Biodiversity	57
Inland aquatic ecosystems	Environmental flows; Riparian and instream habitat and channel form; Water quality (nutrients) in rivers	42
Marine and Coastal	Not applicable	n.a.
Land health	Land health including dryland salinity; Shepparton Irrigation Region salinity; Invasive plants and animals	64; 35; 67
Community capacity	Community engagement; Planning and responding	18; 22
Environmental stewardship	Riparian and instream habitat and channel form; Biodiversity; Shepparton Irrigation Region salinity	42, 57, 35
None applicable	Human resources	70
None applicable	Environmental footprint	77
None applicable	Floodplain management	51

### Biodiversity

#### Management

The Biodiversity Strategy's initiatives and actions, which are aligned with Commonwealth and State strategies and priorities, enable progress towards targets. With just one year remaining of the Biodiversity Strategy (2010-2015), implementation progress remains on track.

Of the 64 actions identified in the strategy, most are either underway, ongoing (with strong progress), or have been completed.

The 2013-14 contribution towards the five strategic directions in the Biodiversity Strategy are described in this annual report (page 57).

#### Catchment Condition

Against a reference point of pre-European settlement, the condition of the Catchment's biodiversity has been rated as 'poor' and this rating has not changed since 1990. However, the rating uses the reference point of 'pre-European' to measure current condition, and this may need revision because we do not aim to restore landscapes to pre-European condition. If we used a reference point that is more meaningful, for example one that considered production and other values, then it is possible that catchment condition could be shown to have improved beyond 'poor' since 1990. Changing the reference point may be useful because while we do not expect the Catchment to ever revert to pre-European condition, we expect most biodiversity can be conserved if supported by adequate legislation and we manage resources and threats strategically. New and existing research partnerships should help us better refine targets and assumptions that help us to better manage biodiversity through strategic planning based on best available science.

A major threat to the condition of biodiversity is climate change, which will result in an increase in frequency of

extreme events. In particular, the increased likelihood and frequency of fire, together with the large-scale and frequent fuel reduction burning, is of concern. Other threats include: the continued decline in threatened species as the 'extinction debt' from past clearing is realised; continued habitat loss through permitted and illegal clearing of native vegetation and weed invasion; habitat loss through, for example, logs used for firewood and 'cleaning up' by landholders (removing important leaf litter and fallen logs); and the inability of flora and fauna to move through fragmented landscapes, creating genetic bottlenecks and loss of sub-populations.

*'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 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, which will be updated in 2015 when the Biodiversity Strategy (2010-15) is revised, 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 ten per cent by 2030.

## Inland aquatic ecosystems

### Management

The development of a second generation Goulburn Broken Waterway Strategy began in 2012 and was completed in 2014, supported by a reference group comprised of community members and representatives from partner agencies.

Barmah-Millewa Forest collaborations included cross-state water management between New South Wales and Victorian agencies and the Murray-Darling Basin Authority.

A total of 714,000 gigalitres of environmental water was used in various wetlands and waterways. For example, environmental water was delivered to Kinnairds and Black Swamps following devastating fires in February 2014. Several studies of wetlands and waterways were undertaken and these will guide delivery of environmental water. For example, a flow study of the mid Goulburn River began and is expected to be completed by the end of 2014.

Monitoring included native fish populations on the Broken Creek following resnagging works.

### Condition

The condition of riparian and in stream habitat and channel form has been impacted by past and present clearing, groundwater extraction, pest plant and animal invasion, the removal of woody debris, stock access to riparian zones, waterway regulation and flow diversion and urban and agricultural development.

Since 2000, condition has also been impacted by prolonged drought, fires and floods. During this time riparian and instream habitat and channel-form management has been supported by improved:

- private landholder, government and agency partnership arrangements
- onground management approaches informed by research and monitoring
- administrative, institutional and legislative arrangements, including the establishment of the environmental water reserve
- community appreciation and support of waterways values.

River and wetland condition in Victoria is assessed using the Index of Stream Condition and the Index of Wetland Condition. These measures assess factors including changes in hydrology, water quality, form, vegetation health, and species diversity. Recent Index of Stream Condition assessments (2010) of selected river reaches in the Goulburn and Broken basins indicated that most reaches are in moderate (53 per cent) and poor (21 per cent) condition, with a small proportion of reaches in very poor condition (11 per cent). About 10 per cent of reaches were assessed to be in good condition and 5 per cent in excellent condition. The overall condition of reaches has not significantly changed since they were last assessed in 2004 despite the impacts of fire, flood and drought.

Since 2009 Index of Wetland Condition assessments have been carried out on 116 wetlands across the region. Results indicate that most are in good (38 per cent) and moderate (40 per cent) condition, and a small proportion are in excellent (6 per cent), poor (15 per cent) and very poor condition (less than 2 per cent). The results also indicate that wetlands on public land are generally in better condition than those on private land.

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.

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.

## Land health

### Land health (including dryland salinity)

#### Management

The Goulburn Broken CMA continues to work closely with the Department of Environment and Primary Industries for strategic implementation of land health outcomes.

The Land Health Statement (LHS) prepared in 2013-14 outlines the direction for the Land Health Program and its activities in the Goulburn Broken Catchment as described in the RCS. In 2013-14, the main outcome sought by investors was farmers developing and implementing practices to increase productivity while improving the delivery of ecosystem services from soils. The mechanism has been to develop strong relationships with farmers in small groups.

Many actions of the Soil Health Action Plan continue to be delivered through alignment with existing programs and a partnership with DEPI, supported by the Victorian Government-funded Land Health Program and the Australian Government-funded Sustainable Farming Practices and Beyond SoilCare projects. In 2013-14 we saw a change in investment from onground incentives, such as land class fencing, to extension, engagement and farmer-led trials.

A submission was put to the Murray-Darling Basin Authority to reduce the legacy of historic impacts of dryland salinity and better reflect the hydrological processes in the Catchment.

#### Condition

There is currently no specific measure of land health condition. A reasonable interim surrogate measure could be soil health, but a reference point has not been determined. A benchmark of soil condition is needed to provide better assessment of the current condition and targets are required to measure progress.

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 important in the Land Health Program because they affect other assets and undermine the resilience of our soil systems.

Erosion is tracking as would be expected and remains a problem. There are a lot of degraded land sites in the Catchment, particularly in the south and south-east, and the sites will continue on their anticipated trajectory unless we intervene or they reach a changed state. The rate of change or progress of these sites is affected by the season. In 2013-14, there has been good rainfall and soils are saturated so erosion is becoming more active and we may see a significant deterioration in stream and land condition.

With a very dry spring-summer, and continuing wet autumn-winter, hydrograph data shows that bores in the mid Goulburn remain relatively steady, while many bores in the upland are continuing to rise. A few in the riverine plains continue to show a falling trend, either because they are in a groundwater sink or regional systems are slowly responding to changed seasonal conditions.

It remains an expectation that saline discharge will emerge as a more obvious problem in the next three to five years.

## Shepparton Irrigation Region salinity

### Management

Implementation of the Shepparton Irrigation Region Catchment Implementation Strategy, which began as the Shepparton Irrigation Region Land and Water Salinity Management Plan, continues in widely varying climatic conditions and changing funding priorities.

The inability to meet community demand for surface drainage and related salinity control has impacted on the region. The return of high watertables has increased demand for salinity control and improved irrigation systems that are connected to surface and sub-surface drainage. The autumn and winter rainfall this year caused a significant area of the irrigated landscape to be waterlogged during the following winter months.

The Farm Water Program continued to roll out in 2013-14, with 171 Round 2 Farm Water Program projects completed.

### Condition

The risks of salinisation and waterlogging have increased due to the return of wetter conditions in recent years. The trend of the shallow watertable rise is alarming given how slowly they fell during the drought and the recent rapid rise. The increased risks are due to:

- rainfall on an irrigated catchment
- the limited funding towards surface and sub-surface drainage works (over the last 10 years in particular)
- increased irrigation volumes in some areas because of large-scale investment in irrigation infrastructure since 2009.

## Invasive plants and animals

### Management

The Goulburn Broken Invasive Plants and Animals Strategy was completed in October 2010, setting the high-level direction for invasive plants and animals investment in the Catchment and supporting the State Invasive Plants and Animals Policy Framework launched in late 2009.

The document, along with community support, is used to identify priorities for pest management activities in the Catchment.

A key element of the strategy is the 'biosecurity approach', which emphasises the need to manage new or emerging weed species to prevent establishment of new species, as this is considered to be the most cost-effective use of limited resources. All new invasive plants and animals projects have been clearly aligned to program goals identified in the strategy. Prevention and eradication of new incursions remain the highest priorities.

### Condition

Invasive plants and animals continue to negatively affect catchment condition. Many species have become naturalised and invade all areas of the Catchment with few, if any, areas not being affected by pest plants or animals. Foxes, feral dogs and cats kill millions of native animals each year and rabbits cause erosion, compete for resources and make revegetation difficult in some areas. Pest plants outcompete native species, reducing diversity.

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, DEPI's capacity to deliver programs has declined. In addition, the focus of federal and state funding has shifted away from pest plants and animals.

In the Goulburn Broken, consideration of invasive plants and animals are built into all projects and programs where possible.

## Community capacity

### Community engagement

#### Management

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

All program sub-strategies include community engagement action plans aligned to the Goulburn Broken CMA's overarching Community Engagement Strategy 2014-15. The

Goulburn Broken CMA's Community Engagement Strategy was reviewed and updated in the first half of 2014 to capture changes in the way the Goulburn Broken CMA will engage with its stakeholders as a result of the development of the Goulburn Broken Regional Catchment Strategy 2013-2019, findings from the 2012 Wallis CMA Awareness Survey and subsequent Action Plan (developed late 2012), and changes in Victorian and Commonwealth government natural resource management funding and priorities.

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

### Condition

Government and regional communities' objectives are clearly aligned:

- 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 4,476 people and 1,500 hours of volunteer time in natural resource management activities every year (these figures are from just the 56 per cent of groups and networks that responded to a survey in 2011-12)
- 35 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.

### Condition

The method for measuring stewardship has not been thoroughly determined.

## Environmental stewardship

### Management

Environmental management agreements were made with different organisations and individuals at many geographic scales, from whole-of-catchment to farm, and at many levels of detail, from strategic to operational plans.

Whole farm plans were completed for 79 properties, covering more than 8,000 hectares.

The 'binding management agreement' output, which is defined by the Goulburn Broken CMA as 'licences, section 173 (of the Planning and Environment Act 1987) and covenants', is one strong indicator of environmental stewardship. In 2013-14, the foundation was laid for achieving a targeted 375 hectares through a new five-year project.

### Condition

The method for measuring stewardship has not been thoroughly determined.

## Corporate Plan key performance indicators\*

\* KPIs derived from current Corporate Plan

Performance area	Performance indicators	Targets	Progress 2013-14
<b>Governance</b>			
<b>Board performance</b>	Complete and submit an annual board performance assessment report, according to any guidelines issued	By 31 August annually	Completed Board Performance Board Performance Evaluation discussions were collated in August 2013 and submitted to Ministers by 30 September 2013.
	Participation by board members in development activities	All board members participate in development activities	Ongoing Board members regularly participate in development activities
<b>Board charter</b>	Develop and implement a board charter	The board charter is reviewed (and if necessary, amended) by 30 June annually	Board Charter was reviewed in June 2014
<b>Risk and financial management</b>	Compliance to risk management plans for each program	All programs have risk management plans in place	Achieved
		Nil non-compliances with risk management plan	Completed
<b>Policies and procedures</b>	Regular review of policies and procedures	Each policy and procedure is reviewed at least every five years	Completed. A total of 55 policies and procedures reviewed in 2013-14, this includes 36 Occupational Health and Safety policies and procedures.
<b>Efficiency of organisational performance</b>			
<b>Grant management</b>	Administration costs of grants are minimised	10 per cent or less of grant funds is spent on administration	Up to eight per cent levy was applied
	Minimise time taken to determine grant applications	Grant applications are determined within one month of being received	Completed
<b>Regulatory waterway/ water functions</b>	Number of days to process works on waterways permits	Not more than 20 working days	78 applications processed. Average response time of 21 days.
	Number of days to process referrals for any works on or in relation to a dam	Not more than 20 working days	3 referrals processed. Average response time of 10 days. 100 per cent within statutory timeframes.
	Number of days to process referrals from local government on flooding and controls on planning scheme amendments, and planning and building approvals	Not more than 20 working days	648 direct applications processed. Average response time of 8 days
	Number of days to process enquiries from local government and the community on flooding	Not more than 20 working days	139 direct enquiries processed. Average response time of 7 days. 97 per cent completed within statutory timeframes.
	Number of days to process referrals for Water Use Licences that don't meet the standard water-use conditions	Not more than 20 working days	Nil referred
	Number of days to process enquiries from Rural Water Corporations on irrigation and drainage plans and seasonal adjustments to annual use limits	Not more than 20 working days	Nil referred
	Number of days to process enquiries from Rural Water Corporations issuing Take and Use Licences	Not more than 20 working days	Nil referred

Performance area	Performance indicators	Targets	Progress 2013-14
<b>Efficiency of organisational performance</b>			
<b>Integrated River Health Management</b>	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 in August 2014.
	Develop and revise Environmental Operating Strategies and Seasonal Watering Proposals (formerly Annual Watering Plans) to manage the environmental water reserve in accordance with objectives	Environmental Operating Strategies developed or revised every five years  Seasonal Watering Proposals (formerly Annual Watering Plans) approved for all Environmental Entitlements	Environmental Operating Strategies not applicable to the Goulburn Broken CMA. Seasonal Watering Proposals (formerly Annual Watering Plans) were developed for the lower Broken Creek, Broken River System, Goulburn River, Barmah Forest and Goulburn Broken Wetlands in accordance with Victorian Environment Water Holder guidelines and timeframes (May 2014).
	Implement annual river health programs and activities to improve environmental values and health of water ecosystems	All annual river health targets and works programs achieved	80 per cent of annual river health targets and works programs achieved. The majority of Caring for our Country implementation targets have been met or exceeded. The majority of multi-year projects are on track.
<b>Regional Catchment Strategy (RCS) implementation</b>	Complete and submit the developed or revised RCS according to any guidelines, standards and related information issued.	Submit the developed or revised RCS by the due date as required in any guidelines. Standards and related information issued.	Achieved. Goulburn Broken Regional Catchment Strategy 2013-2019 launched May 2013.
	Percentage of RCS annual actions implemented	All RCS annual actions implemented	95 per cent achieved
<b>Regional Native Vegetation Plan (RNVP) implementation</b>	Percentage of RNVP annual actions implemented	All RNVP annual actions implemented	All actions are either underway or ongoing.
<b>Invasive plant and animal management</b>	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 2010-15 was endorsed by DPI in October 2010. Next revision of the strategy will be undertaken in 2014-15.
<b>Regional and statutory planning</b>	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
<b>Salinity management</b>	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	To be reviewed following the Goulburn Broken Regional Catchment Strategy finalisation.
	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 2013
<b>Regional Landcare groups, networks and other community groups</b>	Deliver the Regional Landcare Support Strategy, including coordination of Landcare at a regional scale	Evaluate and revise the strategy every five years	Community NRM Plan 2013-14 revised and launched February 2014.

Performance area	Performance indicators	Targets	Progress 2013-14
<b>Strategic organisational measures</b>			
<b>NRM Results</b>	Catchment objectives are achieved or evidence demonstrates movement towards meeting the objectives.	20-30 year objectives for Catchment condition.	On target. See page 13 for further detail.
<b>Client Focused</b>	Clients and stakeholders value the services received from the GB CMA and see the services making a positive contribution to catchment condition.	Satisfaction rating as rated by people having contact with the CMA. Awareness of the GB CMA as a land, water and biodiversity management body.	6.1/10 from Wallis Survey 2012.
<b>Operational Effectiveness</b>	Projects delivered as planned, aligned to GB CMA strategy, on time, on budget, and to an agreed quality.	Progress against agreed RCS Implementation Plan. Performance against Annual Internal Audit Plan. % projects finished on time and on budget (trend over time, and by service provider).	On track. On track. Standard output targets from program areas were met for over 95% of funding lines 2013-14 financial year (63 from 66 funding lines) and 89% of annual standard output targets were achieved or exceeded. The output areas which were not achieved (only 5 from a total of 48) relate to projects with variations.
<b>Financial</b>	The GB CMA optimises investment to on ground works by minimising (as much as possible) the costs incurred by the CMA in facilitating the delivery of NRM activities within the Catchment.	Ratio of CMA staff : \$ works on the ground (as a measure of leverage). Growth in income (incl. proportion of Govt. to Non-Govt.).	9% of funding for salaries and wages, 76% of funding directed to grants. Revenue continues to grow, although this is due to Australian and State investment in the Farm Water Program.
<b>People</b>	The GB CMA has capable and motivated people to enable it to deliver on the RCS and who are able to support the achievement of the Authority's vision and purpose.	Organisational Leadership (in the Organisational Performance Excellence Review). Overall job satisfaction (% of staff).	5.9/10 (top quartile for NRM organisations) from Organisational Performance Excellence Review 2011. As at 2014, 81% of staff were satisfied with their job. The 2012 results was 93%.
<b>Governance and Social Responsibility</b>	Governance structures and processes enable the Board to professionally and competent discharge their responsibilities to the Catchment community.	Strategy and purpose (Aggregated results from Board Assessment). Compliance and Reporting (Aggregated results from Board Performance Assessment).	On track.



## Financial report

Contents	page
Financial results summary: current plus last four years	99
Financial Statements	
Accountable Officers' and Chief Finance and Accounting Officer's declaration	102
Independent Auditor's Report	103
Comprehensive Operating Statement	105
Balance Sheet	106
Statement of Changes in Equity	107
Cash Flow Statement	107
Notes to the Financial Statements	108

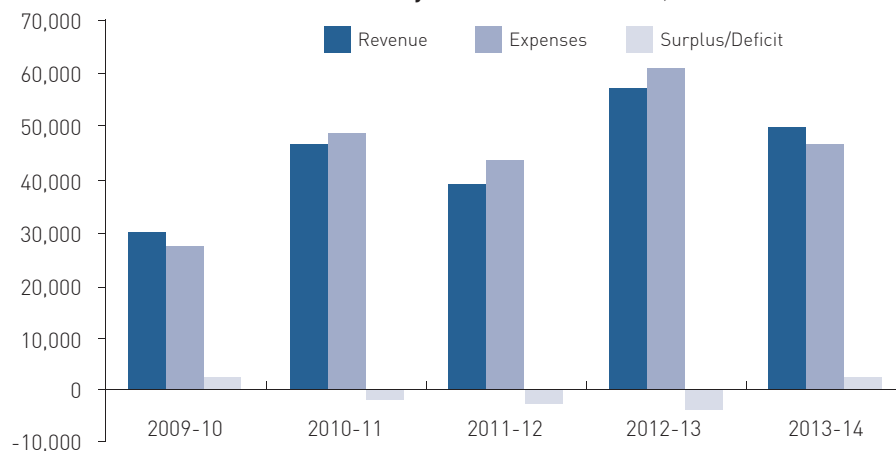
## Financial results summary: current plus past four years

	2009-10 \$000	2010-11 \$000	2011-12 \$000	2012-13 \$000	2013-14 \$000
<b>Income and expenditure</b>					
State Government	19,945	16,746	17,035	34,764	34,753
Australian Government	6,831	16,175	14,602	19,765	12,430
Government contributions	26,776	32,921	31,637	54,529	47,183
Revenue from government entities	1,201	11,066	6,201	1,682	260
Other revenues	1,928	2,593	1,780	1,524	2,081
<b>Total income</b>	<b>29,905</b>	<b>46,580</b>	<b>39,618</b>	<b>57,735</b>	<b>49,524</b>
<b>Expense</b>					
Infrastructure asset write-off	-	133	-	-	-
Interest	2	28	15	6	10
<b>Total expenses</b>	<b>27,240</b>	<b>48,686</b>	<b>42,328</b>	<b>61,383</b>	<b>46,898</b>
<b>NET RESULT</b>	<b>2,665</b>	<b>(2,106)</b>	<b>(2,710)</b>	<b>(3,648)</b>	<b>2,626</b>
<b>Balance sheet items</b>					
<b>Current assets</b>					
Cash	19,074	21,683	34,936	23,146	13,266
Receivables	1,454	4,458	1,177	1,471	3,142
Inventories	-	-	234	-	-
Prepayments	16	22	35	27	173
<b>Total current assets</b>	<b>20,544</b>	<b>26,163</b>	<b>36,382</b>	<b>24,644</b>	<b>16,581</b>
Fixed assets	1,640	1,607	1,449	1,330	1,492
<b>Total assets</b>	<b>22,184</b>	<b>27,770</b>	<b>37,831</b>	<b>25,974</b>	<b>18,073</b>
<b>Current liabilities</b>					
Trade creditors	3,676	4,309	3,518	2,010	1,956
Unearned revenue	-	5,340	17,474	14,220	3,682
Borrowings	37	30	32	31	39
Accruals	1,424	3,006	4,179	760	770
Provisions	1,327	1,428	1,747	1,739	1,742
<b>Total current liabilities</b>	<b>6,464</b>	<b>14,113</b>	<b>26,950</b>	<b>18,760</b>	<b>8,189</b>
<b>Non-current liabilities</b>					
Borrowings	30	29	36	20	32
Other	96	140	67	64	96
<b>Total non-current liabilities</b>	<b>126</b>	<b>169</b>	<b>103</b>	<b>84</b>	<b>128</b>
<b>NET ASSETS</b>	<b>15,594</b>	<b>13,488</b>	<b>10,778</b>	<b>7,130</b>	<b>9,756</b>

## Financial results summary: current plus past four years (Cont'd)

	2009-10 \$000	2010-11 \$000	2011-12 \$000	2012-13 \$000	2013-14 \$000
<b>Equity items</b>					
Contributed capital	4,209	4,209	4,209	4,209	4,209
Reserves	11,385	9,279	6,569	2,921	5,547
<b>TOTAL EQUITY</b>	<b>15,594</b>	<b>13,488</b>	<b>10,778</b>	<b>7,130</b>	<b>9,756</b>
<b>Cash flow items</b>					
Net operating activities	8,986	3,089	13,576	(11,448)	(9,263)
Net investing activities	(295)	(437)	(288)	(297)	(579)
Net financing activities	(51)	(43)	(35)	(45)	(38)
<b>Net cash movement</b>	<b>8,640</b>	<b>2,609</b>	<b>13,253</b>	<b>(11,790)</b>	<b>(9,880)</b>

Financial summary 2009-10 to 2013-14, \$000



## Significant changes in financial results for 2013-14

	Original Corporate Plan April 2013 \$000	Corporate Plan February 2014 <sup>i</sup> \$000	Actual \$000
<b>Comprehensive Operating Statement</b>			
Total revenue	73,885	47,225	49,524
Total expenditure	76,561	(48,507)	(46,898)
<b>Net result</b>	<b>(2,676)</b>	<b>(1,282)</b>	<b>2,626</b>
<b>Statement of financial position</b>			
Cash and receivables	4,997	14,487	16,408
Other	50	50	173
Non-current assets	1,550	1,438	1,492
<b>Total assets</b>	<b>6,267</b>	<b>15,975</b>	<b>18,073</b>
<b>Liabilities</b>			
Current	4,529	10,061	8,189
Non-current	77	66	128
<b>Total liabilities</b>	<b>4,606</b>	<b>10,127</b>	<b>8,317</b>
<b>Net assets</b>	<b>1,661</b>	<b>5,848</b>	<b>9,756</b>

<sup>i</sup> In February 2014 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.

The Deviation to the Corporate Plan submitted in February reflected, reduced funding allocated to Goulburn Broken CMA for Round 3 of the Farm Water Program (Victorian Farm Modernisation Program) compared to the original estimates in the April 2013 Corporate Plan.

Variances in the projected net result in the Deviation to the Corporate Plan (-\$1.2 million from -\$2.6 million) reflected greater estimates of project expenditure to the end of June 2014 against the original Plan.

The variance in the actual result to end June 2014 reflecting a surplus of \$2.6 million compared to the projected deficit related to additional unbudgeted funds of \$1.2 million claimed in June as well as reduced actual expenditure affected by delays in the provision and finalisation of Service Level Agreements with Investors resulting in an extra carry-forward of funds into 2014-15.

#### **Significant changes or factors affecting performance**

Other than as detailed above, there were no significant changes or factors which affected our performance.

#### **Consultancy expenditure**

The definition of consultancy was updated effective from 1 July 2013. Consequently, disclosures on the 2013-14 consultancy expenditure cannot be compared with previous year disclosures.

##### **Details of consultancies (valued at \$10,000 or greater)**

In 2013-14, there were 58 consultancies where the total fees payable to the consultants were \$10,000 or greater. The total expenditure incurred during 2013-14 in relation to these consultancies is \$1,908,607 (excl. GST).

Details of individual consultancies are outlined on the Goulburn Broken Catchment Management Authority website, at [www.gbcma.vic.gov.au](http://www.gbcma.vic.gov.au).

##### **Details of consultancies (values at less than \$10,000)**

In 2013-14, there were 96 consultancies engaged during the year, where the total fees payable to the consultants was less than \$10,000. The total expenditure incurred during 2013-14 in relation to these consultancies was \$268,240 (excl. GST).

#### **Victorian Industry Participation Policy**

One contract in excess of \$1 million was entered into during the year for employment of horticultural labour affected by the Fruit Industry crisis in Goulburn Valley. Recruitment was organised by local recruitment agency. The contract met the VIPP terms for local industry involvement as 99% of the cost was for local labour, whilst other expenditure such as clothing, sunscreen etc; was sourced from local suppliers.

#### **Disclosure of major contracts**

Goulburn Broken CMA did not award any major contracts (valued at \$10 million or more) during 2013-14.

## Financial Statements

### Goulburn Broken Catchment Management Authority

Australian Business Number (ABN): 89 184 039 725

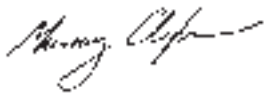
#### Accountable Officers' and Chief Finance and Accounting Officer's declaration

The attached financial report for the Goulburn Broken Catchment Management Authority (Goulburn Broken CMA) has been prepared in accordance with Standing Directions 4.2 of the Financial Management Act 1994, applicable Financial Reporting Directions, Australian Accounting Standards including 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 accompanying notes, presents fairly the financial transactions during the year ended 30 June 2014 and financial position of the Goulburn Broken CMA at 30 June 2014.

At the time of signing, we are not aware of any circumstance which would render any particulars included in the financial statements to be misleading or inaccurate.

We authorise the attached financial statements for issue on 26 August 2014.



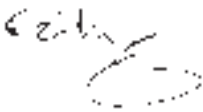
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M Chapman  
Chair



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C P Norman  
Chief Executive Officer



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S D Gibney  
Chief Finance and Accounting Officer  
26 August 2014

## 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 2014 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 accountable officers' and chief finance and accounting officer's declaration 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.



## 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 2014 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 2014 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  
27 August 2014

for   
John Doyle  
Auditor-General

*Auditing in the Public Interest*

## Comprehensive Operating Statement for the financial year ended 30 June 2014

	Note	2014 \$000	2013 \$000
Revenue from operating activities			
Government contributions	3	47,183	54,529
Revenue from government entities	3	260	1,682
Other revenues from ordinary activities	3	2,065	1,492
		49,508	57,703
Revenue from non-operating activities	3	16	32
<b>TOTAL REVENUE</b>		<b>49,524</b>	<b>57,735</b>
Expenses from operating activities			
Operating costs to Programs	4a	(45,986)	(60,109)
Amortisation of leased assets	4c	(35)	(33)
Depreciation	4b	(456)	(436)
Interest		(10)	(6)
Provision for Bad Debt		(92)	-
Seedbank assets donated		-	(477)
Occupancy expenses		(319)	(322)
<b>TOTAL EXPENSES</b>		<b>(46,898)</b>	<b>(61,383)</b>
<b>NET RESULT FOR THE PERIOD</b>	<b>15</b>	<b>2,626</b>	<b>(3,648)</b>
<b>Comprehensive result</b>	<b>15</b>	<b>2,626</b>	<b>(3,648)</b>

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

## Balance Sheet as at 30 June 2014

	Note	2014 \$'000	2013 \$'000
<b>Assets</b>			
Current assets			
Cash and cash equivalents	5	13,266	23,146
Receivables	6	3,142	1,471
Prepayments		173	27
<b>Total current assets</b>		<b>16,581</b>	<b>24,644</b>
Non-current assets			
Property, plant and equipment	7	1,492	1,330
<b>Total non-current assets</b>		<b>1,492</b>	<b>1,330</b>
<b>Total assets</b>		<b>18,073</b>	<b>25,974</b>
<b>Liabilities</b>			
Current liabilities			
Payables	8	2,726	2,770
Unearned revenue	9	3,682	14,220
Interest bearing liabilities	10	39	31
Employee benefits	11	1,742	1,739
<b>Total current liabilities</b>		<b>8,189</b>	<b>18,760</b>
Non-current liabilities			
Interest bearing liabilities	10	32	20
Employee benefits	11	96	64
<b>Total non-current liabilities</b>		<b>128</b>	<b>84</b>
<b>Total liabilities</b>		<b>8,317</b>	<b>18,844</b>
<b>Net assets</b>		<b>9,756</b>	<b>7,130</b>
<b>Equity</b>			
Contributed equity	13	4,209	4,209
Accumulated funds	14	-	-
Committed Funds Reserve	15	5,547	2,921
<b>Total equity</b>		<b>9,756</b>	<b>7,130</b>

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 2014

	Note	Contributions by owners \$000	Reserves \$000	Accumulated funds \$000	Total \$000
Balance at 1 July 2012		4,209	6,569	-	10,778
Net result for the period		-	-	(3,648)	(3,648)
Transfer to / (from) Reserves			(3,648)	3,648	-
Balance at 30 June 2013		4,209	2,921	-	7,130
Total Comprehensive Income for the year		-	-	2,626	2,626
Transfer to / (from) Reserves			2,626	(2,626)	-
Balance at 30 June 2014		4,209	5,547	-	9,756

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 2014

	Note	2014 \$000	2013 \$000
Cash flow from operating activities			
Government contributions		47,456	58,234
Revenue from other Government Entities		202	1,660
Payments to suppliers and employees		(60,746)	(73,682)
GST (remitted to) received from Australian Tax Office		1,273	712
Interest received		1,018	511
Interest paid		(10)	(6)
Other revenue		1,544	1,123
Net cash provided by (used in) operating activities	21b	(9,263)	(11,448)
Cash flow from financing activities			
Repayment of finance lease liabilities		(38)	(45)
Net cash provided by (used in) finance activities		(38)	(45)
Cash flow from investing activities			
Proceeds from sale of property, plant and equipment		271	316
Payment for property, plant and equipment		(850)	(613)
Net cash provided by (used in) investing activities		(579)	(297)
Net (decrease) / increase in cash held		(9,880)	(11,790)
Cash and cash equivalents at beginning of year		23,146	34,936
Cash and cash equivalents at end of year	21a	13,266	23,146

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 2014

### Note 1: Significant accounting policies

#### a Basis of accounting

##### *General*

This financial report of the 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 AASs applicable to Not for Profit entities have been applied.

##### *Accounting policies*

Accounting policies are selected and applied in a manner which ensures that the resulting financial information satisfies the concepts of relevance and reliability, thereby ensuring that the substance of the underlying transactions or other events is reported.

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.

##### *Functional and Presentation Currency*

Items included in this financial report are measured using the currency of the primary economic environment in which Goulburn Broken CMA operates ('the functional currency'). The financial statements are presented in Australian dollars, which is Goulburn Broken CMA's functional and presentation currency.

##### *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 AASs 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, ASSs also require management to exercise its judgement in the process of applying the Goulburn Broken CMA's accounting policies. The most significant accounting estimates undertaken in the preparation of this financial report relate to:

- estimation of useful lives
- the impairment of assets
- provisions

##### *Financial Statement Presentation*

Goulburn Broken CMA has applied the revised AASB 101 Presentation of Financial Statements which became effective for reporting periods beginning, on or after, 1 July 2013, and AASB 1054 Australian Additional Disclosures which became effective for reporting periods beginning on, or after, 1 July 2013.

#### 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 as received. 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. Any grants and contributions received from the Victorian Government which the relevant Ministers have indicated are in the nature of owners' contributions, are accounted for as Equity – Contributed Capital.

## Notes to the financial statements for the year ended 30 June 2014

### Note 1: Significant accounting policies (Cont'd)

#### *On-Farm Irrigation Efficiency (Farm Water) Program*

During the financial year Goulburn Broken CMA continued as the 'delivery partner' for both the Australian Government and GMW Connections Project and the Victorian State On-Farm Project. Goulburn Broken CMA was also successful in obtaining funding under the Victorian Farm Modernisation Program - Tranche 1.

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, GMW Connections Project or the State of Victoria.

Goulburn Broken CMA reflects as Revenue, 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 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 2014.

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

#### *Acquisition*

Assets acquired are brought to account at cost. 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) 103E. Revaluations are conducted in accordance with FRD 103E.

#### *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 are 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.



## Notes to the financial statements for the year ended 30 June 2014

### Note 1: Significant accounting policies (Cont'd)

#### *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 statement.

#### *Intangibles*

Intangible assets represent identifiable non-monetary assets without physical substance. Intangible assets are initially recognised at cost. Subsequently, intangible assets with finite useful lives are carried at cost less accumulated amortisation and accumulated impairment losses. Costs incurred subsequent to initial acquisition are capitalised when it is expected that additional future economic benefits will flow to Goulburn Broken CMA. The amortisation method is reviewed at each financial year-end and assets are reviewed annually for indicators of impairment. Intangible assets consist of software and licences. These assets are amortised over 5 years. Costs in relation to web sites controlled by Goulburn Broken CMA are charged as expenses in the period in which they are incurred unless they relate to the acquisition of an asset, in which case they are capitalised and amortised over their period of expected benefits. Generally, costs in relation to feasibility studies during the planning phase of a web site, and ongoing costs of maintenance during the operating phase are considered to be expenses. Costs incurred in building or enhancing a web site, to the extent that they represent probable future economic benefits controlled by the entity that can be reliably measured, are capitalised as an asset and amortised over the period of the expected benefits, which vary from three to five years.

#### **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
Website upgrade	20

#### **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. 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 to the comprehensive operating statement on a straight line basis as an expense over the period of the lease 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.

Receivables consist of both Contractual and Statutory receivables. Total receivables consists predominantly of contractual receivables such as debtors in relation to goods and services arising from grants, accrued investment income, and finance lease receivables. Statutory receivables are recognised and measured similarly to Contractual receivables (except for impairment), but are not classified as financial instruments because they do not arise from a contract.

## Notes to the financial statements for the year ended 30 June 2014

### Note 1: Significant accounting policies (Cont'd)

#### i Inventories

Inventories comprise seed used in the propagation of revegetation works. Inventories held for sale 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.

#### 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 contractual payables such as accounts payable and unearned income and statutory payables. Statutory payables consists of goods and services tax, payroll tax and fringe benefits tax payables. Accounts payable represent liabilities for goods and services provided to Goulburn Broken CMA prior to the end of the financial year that are unpaid, and arise when Goulburn Broken CMA becomes obliged to make future payments in respect of the purchase of those goods and services. Contractual Payables are classified as financial instruments and categorised as financial liabilities at amortised cost. Statutory payables are not classified as financial instruments and are not included in the category of financial liabilities at amortised cost because they do not arise from a contract.

Payables 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 wholly within 12 months, are measured as the present value of the estimated future cash outflows to be made by Goulburn Broken CMA 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 wholly within 12 months; and
- nominal value – component that the Goulburn Broken CMA expects to settle wholly 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 Comprehensive Operating Statement in respect of superannuation represents contributions made or due by the Goulburn Broken CMA to the relevant superannuation plans in respect to the services of the Goulburn Broken CMA's staff (both past and present). Superannuation contributions are made to the plans based on the relevant rules of each plan and any relevant compulsory superannuation requirements that the Goulburn Broken CMA is required to comply with.

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

##### *Employee benefit on-costs*

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

## Notes to the financial statements for the year ended 30 June 2014

### Note 1: Significant accounting policies (Cont'd)

#### *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 Environment and Primary Industry treat grant contributions to the Goulburn Broken CMA for the agreed works program to be State 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, except for the following changes to standards:

The standard for Fair Value Measurement (AASB13) establishes a single source of guidance for all fair value measurements. AASB 13 does not change when Goulburn Broken CMA is required to use fair value, but rather provides guidance on how to measure fair value under Australian Accounting Standards when fair value is required or permitted. Goulburn Broken CMA has considered the specific requirements relating to highest and best use, valuation premise, and principal (or most advantageous) market. The methods, assumptions, processes and procedures for determining fair value were revisited and adjusted where applicable. In light of AASB 13, Goulburn Broken CMA has reviewed the fair value principles as well as its current valuation methodologies in assessing the fair value, and the assessment has not materially changed the fair values recognised.

However, AASB 13 has predominantly impacted the disclosures of Goulburn Broken CMA. It requires specific disclosures about fair value measurements and disclosures of fair values, some of which replace existing disclosure requirements in other standards, including AASB 7 Financial Instruments: Disclosures. The disclosure requirements of AASB 13 apply prospectively and need not be applied in comparative information before first application. Consequently, the 2012-13 comparatives of these disclosures have not been provided, except for financial instruments, of which the fair value disclosures are required under AASB 7 Financial Instruments: Disclosures.

#### *AASB 119 Employee benefits*

In 2013-14, the Authority has applied AASB 119 Employee Benefits (September 2011, as amended) and the related consequential amendments for the first time.

The revised AASB 119 changes the accounting for defined benefit plans and termination benefits. The most significant change relates to the accounting for changes in defined benefit obligation and plan assets. As provided under Paragraph 34 of AASB 119, the Authority does not use defined benefit accounting for its defined benefit obligations under the Fund's Defined Benefit category. This is because the Fund's Defined Benefit category is a multi-employer sponsored plan.

The revised standard also changes the definition of short term employee benefits. These were previously benefits that were expected to be settled within twelve months after the end of the reporting period in which the employees render the related service, however, short term employee benefits are now defined as benefits expected to be settled wholly within twelve months after the end of the reporting period in which the employees render the related service. In light of AASB 119, the Authority has reviewed accrued annual leave and has determined there to be no material change in the classification of accrued annual leave balances as short term employee benefits.

## Notes to the financial statements for the year ended 30 June 2014

### 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. Gains or losses arising from changes in fair value are recognised in the Comprehensive Operating Statement.

##### *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. Receivables are recorded at amortised cost less impairment.

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

##### *Fair value*

Fair value is determined based on current bid prices for all quoted investments. Valuation techniques are applied to determine the fair value for all unlisted securities, including recent arm's length transactions, reference to similar instruments and option pricing models.

Consistent with AASB 13 Fair Value Measurement, Goulburn Broken CMA determines the policies and procedures for both recurring fair value measurements such as infrastructure, property, plant and equipment, and financial instruments and for non recurring fair value measurements such as assets held for sale, in accordance with the requirements of AASB 13 and the relevant Financial Reporting Directions.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

- Level 1 — Quoted (unadjusted) market prices in active markets for identical assets or liabilities
- Level 2 — Valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable; and
- Level 3 — Valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

For the purpose of fair value disclosures, Goulburn Broken CMA has determined classes of assets and liabilities on the basis of the nature, characteristics and risks of the asset or liability and the level of the fair value hierarchy as explained above.

In addition, Goulburn Broken CMA determines whether transfers have occurred between levels in the hierarchy by re-assessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

The Valuer General Victoria (VGV) Goulburn Broken CMA's independent valuation agency.

Goulburn Broken CMA, in conjunction with VGV, monitors changes in the fair value of each asset through relevant data sources to determine whether revaluation is required.

#### r Comparative amounts

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

## Notes to the financial statements for the year ended 30 June 2014

### Note 1: Significant accounting policies (Cont'd)

#### 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 16) at their nominal value and inclusive 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 17) and, if quantifiable, are measured at nominal value. Contingent assets and liabilities are presented inclusive 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 2014 reporting period. As at 30 June 2014, Goulburn Broken CMA has not and does not intend to adopt these standards early. Department of Treasury and Finance (DTF) assesses the impact of new standards and advises Goulburn Broken CMA of their applicability and early adoption where applicable.

### 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 impacts 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, as 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.

## Notes to the financial statements for the year ended 30 June 2014

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

30 June 2014	Carrying amount \$000	Interest rate risk			
		-1 per cent		+1 per cent	
		Result \$000	Equity \$000	Result \$000	Equity \$000
<b>Financial assets</b>					
Cash at bank	13,266	(133)	(133)	133	133
Receivables	3,142	-	-	-	-
<b>Financial liabilities</b>					
Payables	(2,726)	-	-	-	-
Interest bearing liabilities	(71)	-	-	-	-
Total increase/(decrease)	13,611	(133)	(133)	133	133

30 June 2013	Carrying amount \$000	Interest rate risk			
		-1 per cent		+1 per cent	
		Result \$000	Equity \$000	Result \$000	Equity \$000
<b>Financial assets</b>					
Cash at bank	23,146	(231)	(231)	231	231
Receivables	1,471	-	-	-	-
<b>Financial liabilities</b>					
Payables	(2,770)	-	-	-	-
Interest bearing liabilities	(51)	-	-	-	-
Total increase/(decrease)	21,796	(231)	(231)	231	231

#### 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.

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. In relation to cash at bank, cash is invested with Treasury Corporation Victoria and Authorised Deposit Taking Institutions.

#### c Liquidity risk

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

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

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

#### 2.2 Fair valuation estimation

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

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



## Notes to the financial statements for the year ended 30 June 2014

### Note 3: Revenues

	Note	2014 \$000	2013 \$000
<b>Government Contributions</b>			
State		34,753	34,764
Commonwealth		12,430	19,765
<b>Total Government Contributions</b>		<b>47,183</b>	<b>54,529</b>
<b>Revenue From Government Entities</b>			
Goulburn Murray Water Connections Project		226	1,597
Murray-Darling Basin Authority		34	85
<b>Total Revenue From Government Entities</b>		<b>260</b>	<b>1,682</b>
<b>Other Revenues</b>			
Interest		995	478
Seedbank		-	212
Regional Contributions		658	483
Recoverable Costs		133	161
Other		279	158
<b>Total Other Revenues</b>		<b>2,065</b>	<b>1,492</b>
<b>Non Operating Revenue</b>			
(Loss)/Gain on Disposal of Property, Plant & Equipment		16	32
<b>Total Revenue</b>		<b>49,524</b>	<b>57,735</b>

## Notes to the financial statements for the year ended 30 June 2014

### Note 4: Expenses

Net result for the period has been determined after:

	Note	2014 \$000	2013 \$000
<b>a Operating costs to programs</b>			
Land and Biodiversity		6,916	8,308
Sustainable Irrigation		32,908	43,511
River Health & Floodplain		4,975	6,945
Corporate			
• Audit Fees - External		28	13
- Internal		78	54
• Other		688	710
Corporate Administration		794	777
Business Development		346	304
Regional Catchment Strategy		47	264
Total Corporate		1,187	1,345
Total operating costs to programs		45,986	60,109
<b>b Depreciation of non-current assets</b>			
Buildings		-	-
Plant and equipment and other		129	101
Motor vehicles		327	335
Total depreciation		456	436
<b>c Amortisation of leased assets</b>		35	33
<b>d Employee related expenses</b>			
Included in the Program Expenditure totals are the following employee related expenses			
Salary & Wages		4,295	4,285
Annual Leave		369	350
Long Service Leave		156	115
Employer Superannuation contributions*		557	497
Other		268	189
Total employee related expenses		5,645	5,436

### Note 5: Cash and cash equivalents

	Note	2014 \$000	2013 \$000
Cash on hand		2	2
Cash at Bank		6,764	5,403
Term Deposit at Bank		2,000	2,000
Deposits at Call with Treasury Corp Victoria		4,500	15,741
Total cash and cash equivalents		13,266	23,146

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.

## Notes to the financial statements for the year ended 30 June 2014

### Note 5: Cash and cash equivalents (Cont'd)

#### (b) Cash at Bank

Amounts at bank bear floating interest rates currently 2.35 per cent (2013: 2.60 per cent)

#### (c) Term deposit at Bank

Term Deposit bears interest at 3.25 per cent and matures on 21 July 2014 (2013: 3.80 per cent)

#### (d) Deposits at call

The Deposits at call with Treasury Corporation Victoria bear interest at 2.45 per cent (2013: 2.74 per cent)

### Note 6: Receivables

	Note	2014 \$000	2013 \$000
Government grants receivable		2,432	890
Net GST amount due from Australian Tax Office		359	220
Trade debtors		413	308
Less provision for bad debt		(92)	-
Accrued interest		30	53
<b>Total receivables</b>		<b>3,142</b>	<b>1,471</b>
<b>a Provision for impaired receivables</b>			

As at 30 June 2014, current receivables of the Goulburn Broken CMA with a nominal value of \$92,450 (2013: \$nil) were impaired.

<b>b Past due but not impaired receivables</b>			
--	--	--	--

As at 30 June 2014, government receivables of \$830,000 (2013: \$nil) and other receivables of \$nil (2013: \$12,833) 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		390	13
Over six months		-	-
<b>Total</b>		<b>390</b>	<b>13</b>

### Note 7: Property plant and equipment

	Note	2014 \$000	2013 \$000
Buildings at fair value		44	44
Less accumulated depreciation		(44)	(44)
		-	-
Plant and equipment at fair value		1,304	1,160
Less accumulated depreciation		(1,020)	(912)
		284	248
Motor vehicles at fair value		1,680	1,597
Less accumulated depreciation		(580)	(568)
		1,100	1,029
Office and computer equipment acquired under finance lease at fair value		353	295
Accumulated amortisation		(275)	(242)
		78	53
Website Development		33	-
Accumulated amortisation		(3)	-
		30	-
<b>Total property, plant and equipment</b>		<b>1,492</b>	<b>1,330</b>

## Notes to the financial statements for the year ended 30 June 2014

### Note 7: Property plant and equipment (Cont'd)

#### 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.

	Buildings \$000	Plant and equipment \$000	Motor vehicles \$000	Equipment under finance lease \$000	Website \$000	Total \$000
<b>2013-14</b>						
Opening written down value at 1 July 2013	-	248	1,029	53	-	1,330
Additions	-	164	652	57	33	906
Disposals	-	-	(254)	-	-	(254)
Asset write-off	-	-	-	-	-	-
Depreciation expense	-	(128)	(327)	-	-	(455)
Amortisation	-	-	-	(32)	(3)	(35)
Closing written down value at 30 June 2014	-	284	1,100	78	30	1,492
<b>2012-13</b>						
Opening written down value at 1 July 2012	-	201	1,184	64	-	1,449
Additions	-	148	465	22	-	635
Disposals	-	-	(285)	-	-	(285)
Depreciation expense	-	(101)	(335)	-	-	(436)
Amortisation	-	-	-	(33)	-	(33)
Closing written down value at 30 June 2013	-	248	1,029	53	-	1,330

#### Fair Value Hierarchy

Fair Value measurement recognised in the balance sheet are categorised into the following levels at 30 June 2014.

	2014 Carrying amount \$000	Fair Value measurement at end of reporting period using:		
		Level 1 \$000	Level 2 \$000	Level 3 \$000
<b>Building at fair value</b>				
Non- Specialised Buildings	0	-	0	-
Total Building at fair value	0	-	0	-
<b>Plant, equipment and Vehicles at fair value</b>				
Plant and Equipment	284	-	284	-
Vehicles	1,100	-	1,100	-
Total Plant, equipment and Vehicles at fair value	1,384	-	1,384	-
<b>Office and Computer Equipment at fair value</b>				
Office and Computer Equipment	78	-	78	-
Total Office and Computer Equipment at fair value	78	-	78	-

There were no transfers between hierarchy levels during the period ended 30 June 2014.

#### Class of property, plant and equipment

Valuation of the following classes of assets was based on observable market data and therefore Goulburn Broken CMA believe that classification of Level 2 is appropriate.

##### *Non-Specialised buildings*

Buildings relate to non-specialised portable structures and were valued based on depreciated replacement cost.

## Notes to the financial statements for the year ended 30 June 2014

### Note 7: Property plant and equipment (Cont'd)

#### Vehicles

Vehicles are valued using the depreciated replacement cost method. Goulburn Broken CMA acquires new vehicles and at times disposes of them before the end of their economic life. The process of acquisition, use and disposal in the market is managed by experienced external fleet managers who set relevant depreciation rates during use to reflect the utilisation of the vehicles.

#### Plant, office and computer equipment

Plant and equipment is held at fair value. When plant and equipment is specialised in use, such that it is rarely sold other than as part of a going concern, fair value is determined using the depreciated replacement cost method.

There were no changes in valuation techniques throughout the period to 30 June 2014.

For all assets measured at fair value, the current use is considered the highest and best use.

### Note 8: Payables

	Note	2014 \$000	2013 \$000
Trade creditors		1,956	2,010
Accruals		770	760
<b>Total payables</b>		<b>2,726</b>	<b>2,770</b>

### Note 9: Unearned Revenue

	Note	2014 \$000	2013 \$000
Commonwealth OFIEP Round 1		-	2
Commonwealth OFIEP Round 1- Interest		-	235
GMW Connections Project		-	113
Commonwealth OFIEP Round 2		323	2,668
Commonwealth OFIEP Round 2 - Interest		218	183
Victorian On-Farm State Project		403	10,690
Victorian On-Farm State Project - Interest		41	329
Victorian Farm Modernisation Project		2,665	-
Victorian Farm Modernisation Project Interest		32	-
<b>Total</b>		<b>3,682</b>	<b>14,220</b>

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

### Note 10: Interest bearing liabilities

	Note	2014 \$000	2013 \$000
<b>Current</b>			
Secured			
Finance lease liability	16b	39	31
<b>Non-current</b>			
Secured			
Finance lease liability	16b	32	20
Assets pledged as security		-	-
<b>Total interest bearing liabilities</b>		<b>71</b>	<b>51</b>

## Notes to the financial statements for the year ended 30 June 2014

### Note 11 : Employment benefits

	Note	2014 \$000	2013 \$000
<b>Current</b>			
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		453	436
Employee benefits expected to be settled after 12 months, after the end of the period, measured at present value		1,289	1,303
<b>Total current</b>		<b>1,742</b>	<b>1,739</b>
<b>Non-current</b>			
Conditional long service leave measured at present value		96	64
<b>Total employee benefits</b>		<b>1,838</b>	<b>1,803</b>

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 noncurrent liability.

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

	2014	2013
Weighted average increase in employee costs	4.44%	4.50%
Weighted average discount rates	3.57%	3.79%
Weighted average settlement period	10 years	10 years

### Note 12: Superannuation

The Goulburn Broken CMA makes the majority of its employer superannuation contributions in respect of its employees to the Local Authorities Superannuation Fund (the Fund). This Fund has two categories of membership, accumulation and defined benefit, each of which is funded differently. The defined benefit section provides benefits based on years of service and final average salary. The defined contribution section receives fixed contributions from the Goulburn Broken CMA and the Goulburn Broken CMA's legal or constructive obligation is limited to these contributions.

Obligations for contributions to the Fund are recognised as an expense in Comprehensive Operating Statement when they are made or due.

#### Accumulation

The Fund's accumulation category, Vision MySuper/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 (for the year ended 30 June 2014, this was 9.25% required under Superannuation Guarantee legislation). Our commitment to defined contribution plans is limited to making contributions in accordance with our minimum statutory requirements. 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.

Effective from 1 July 2014, the Superannuation Guarantee contribution rate is legislated to increase to 9.5%, and will progressively increase to 12% by 2019. Based on announcements included in the May 2014 Federal Budget, this progressive increase to 12% will be delayed until 2022.

#### Defined Benefit

As provided under Paragraph 34 of AASB 119, Goulburn Broken CMA does not use defined benefit accounting for its defined benefit obligations under the Fund's Defined Benefit category. This is because the Fund's Defined Benefit category is a multi-employer sponsored plan.

As a multi-employer sponsored plan, the Fund was established as a mutual scheme to allow for the mobility of the workforce between the participating employers without attaching a specific liability to particular employees and their current employer. Therefore, there is no proportional split of the defined benefit liabilities, assets or costs between the participating employers as the defined benefit obligation is a floating obligation between the participating employers and the only time that the aggregate obligation is allocated to specific employers is when a call is made. As a result, the level of participation of Goulburn Broken CMA in the Fund cannot be measured as a percentage compared with other participating employers. While there is an agreed methodology to allocate any shortfalls identified by the Fund Actuary for funding purposes, there is no agreed methodology to allocate benefit liabilities, assets and costs between the participating employers for accounting purposes. Therefore, the Actuary is unable to allocate benefit liabilities, assets and costs between employers for the purposes of AASB 119.



## Notes to the financial statements for the year ended 30 June 2014

### Note 12: Superannuation (Cont'd)

#### Shortfall amounts

The Local Authorities Superannuation Fund's latest actuarial investigation as at 31 December 2011 identified an unfunded liability of \$406 million (excluding contributions tax) in the defined benefit category of which the Goulburn Broken CMA is a contributing employer.

The Goulburn Broken CMA was made aware of the expected shortfall during the 2011/12 year and was informed of its share of the shortfall on 2 August 2012. Goulburn Broken CMA has not been advised of any further adjustments.

The Goulburn Broken CMA's share of the shortfall amounted to \$134,410 which was accounted for in the 2011/12 Comprehensive Operating Statement within Employee Benefits and in the Balance Sheet in Current Liabilities Provisions.

No further amount has been accounted for in the 2013/14 Comprehensive Operating Statement within Employee Benefits see Note 4(d) and in the Balance Sheet in Current Liabilities Provisions (see Note 11).

The amount of the unpaid shortfall at 30 June 2014 is \$Nil (\$Nil for 2012/13).

#### Retrenchment increments

During 2013-14, Goulburn Broken CMA was not required to make payments to the Fund in respect of retrenchment increments (\$Nil in 2012/13). The Goulburn Broken CMA's liability to the Fund as at 30 June 2014, for retrenchment increments, accrued interest and tax is \$Nil (\$Nil in 2012/13).

#### Accrued benefits

The Fund's liability for accrued benefits was determined in the 31 December 2011 actuarial investigation pursuant to the requirements of Australian Accounting Standard Board 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

The next full actuarial investigation of the Fund's liability for accrued benefits will be based on the Fund's position as at 30 June 2014. The anticipated completion date of this actuarial investigation is 19 December 2014.

There was \$840 in relevant contributions outstanding to the Defined Benefit Category Vision Super as at 30 June 2014.

The expected contributions to be paid to the Defined Benefit Category of Vision Super for the year ending 30 June 2015 is \$9,470.

### Funding Arrangements

The 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. The Fund's employer funding arrangements comprise of three components (which are detailed below) are:

1. Regular contributions - which are ongoing contributions needed to fund the balance of benefits for current members and pensioners;
2. Funding calls - which are contributions in respect of each participating employer's share of any funding shortfalls that arise; and
3. Retrenchment increments - which are additional contributions to cover the increase in liability arising from retrenchments.

The Goulburn Broken CMA is also required to make additional contributions to cover the contribution tax payable on the contributions referred to above.

Employees are also required to make member contributions to the Fund. As such, assets accumulate in the Fund to meet member benefits, as defined in the Trust Deed, as they accrue.

## Notes to the financial statements for the year ended 30 June 2014

### Note 12: Superannuation (Cont'd)

#### Employer Contributions

##### Regular Contributions

On the basis of the results of the most recent full actuarial investigation conducted by the Fund's Actuary as at 31 December 2011, the Goulburn Broken CMA makes employer contributions to the Fund's Defined Benefit category at rates determined by the Fund's Trustee. For the year ended 30 June 2014, this rate was 9.25% of members' salaries. This rate increased to 9.5% on 1 July 2014 and is expected to increase in line with the required Superannuation Guarantee contribution rate.

In addition, Goulburn Broken CMA reimburses the Fund to cover the excess of the benefits paid as a consequence of retrenchment above the funded resignation or retirement benefit (the funded resignation or retirement benefit is calculated as the VBI multiplied by the benefit).

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

	Type of scheme	Rate %	2014 \$000	2013 \$000
Government Superannuation Office	Accumulation	Various	66	65
Vision Super	Defined Benefits	9.25	9	16
Vision Super	Accumulation	9.25	140	131
Other funds	Accumulation	9.25	342	285
<b>Total contributions to all funds</b>			<b>557</b>	<b>497</b>

##### Funding Calls

The Fund is required to comply with the superannuation prudential standards. Under the superannuation prudential standard SPS 160, the Fund is required to target full funding of its vested benefits. There may be circumstances where:

- a fund is in an unsatisfactory financial position at an actuarial investigation (i.e. its vested benefit index (VBI) is less than 100% at the date of the actuarial investigation); or
- a fund's VBI is below its shortfall limit at any time other than at the date of the actuarial investigations.

If either of the above occur, the fund has a shortfall for the purposes of SPS 160 and the fund is required to put a plan in place so that the shortfall is fully funded within three years of the shortfall occurring. There may be circumstances where the Australian Prudential Regulation Authority (APRA) may approve a period longer than three years.

The Fund monitors its VBI on a quarterly basis and the Fund has set its shortfall limit at 97%.

In the event that the Fund Actuary determines that there is a shortfall based on the above requirement, the Fund's participating employers (including the Goulburn Broken CMA) are required to make an employer contribution to cover the shortfall. The methodology used to allocate the shortfall was agreed in 1997 to fairly and reasonably apportion the shortfall between the participating employers.

Using the agreed methodology, the shortfall amount is apportioned between the participating employers based on the pre-1 July 1993 and post-30 June 1993 service liabilities of the Fund's defined benefit category, together with the employer's payroll at 30 June 1993 and at the date the shortfall has been calculated.

The pre-1 July 1993 and post-30 June 1993 service liabilities of the Fund are based on:

- The service periods of all active members split between the active members pre-1 July 1993 and post-30 June 1993 service period;
- The service periods of all deferred members split between the deferred members pre-1 July 1993 and post-30 June 1993 service period; and
- The pensioner (including fixed term pension) liabilities which are allocated to the pre-1993 period.

The pre-1 July 1993 component of the shortfall is apportioned between the participating employers based on the employer's share of the total participating employer payroll at 30 June 1993.

The post-30 June 1993 component of the shortfall is apportioned between the participating employers based on the employer's share of the total participating employer payroll at the date the shortfall has been calculated.

Due to the nature of the contractual obligations between the participating employers and the Fund, and that the Fund includes lifetime pensioners and their reversionary beneficiaries, it is unlikely that the Fund will be wound up. In the unlikely event that the Fund is wound up and there is a surplus in the Fund, the surplus cannot be applied for the benefit of the defined benefit employers where there are on-going defined benefit obligations. The surplus would be transferred to the fund accepting those defined benefit obligations (including the lifetime pension obligations) of the Fund.

In the event that a participating employer is wound-up, the defined benefit obligations of that employer will be transferred to that employer's successor.

## Notes to the financial statements for the year ended 30 June 2014

### Note 12: Superannuation (Cont'd)

#### *Differences in calculations*

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), for the calculation of accrued benefits as required in AAS 25 and for 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 be calculated based on benefits that have accrued in respect of membership of the plan up to the measurement date, with no allowance for future benefits that may accrue.

As at balance date, there were contributions payable to all superannuation funds of \$54,449 (2013: \$40,214).

### Note 13: Contributed equity

	Note	2014 \$000	2013 \$000
Balance at the beginning of the reporting period		4,209	4,209
Contributed capital received		-	-
Balance at the end of the reporting period		4,209	4,209

### Note 14: Accumulated Funds

	Note	2014 \$000	2013 \$000
Balance at the beginning of the reporting period			
Net result for the year		2,626	(3,648)
Transfer from / (to) reserves		(2,626)	3,648
Balance at the end of the reporting period		-	-

### Note 15: Committed Funds Reserve

	Note	2014 \$000	2013 \$000
Committed funds reserve			
Balance at the beginning of the reporting period		2,921	6,569
Net transfers (to) / from accumulated funds		2,626	(3,648)
Balance at the end of the reporting period		5,547	2,921

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.

## Notes to the financial statements for the year ended 30 June 2014

### Note 16: Commitments

	Note	2014 \$000	2013 \$000
<b>a Operating lease commitments:</b>			
Office accommodation			
Within one year		292	284
One year to five years		523	814
<b>Total</b>		<b>815</b>	<b>1,098</b>
Within one year		292	284
One year to five years		523	814
<b>Total</b>		<b>815</b>	<b>1,098</b>
<b>b Finance leases commitments</b>			
At balance date the Goulburn Broken CMA had finance lease commitments payable as follows:			
Within one year		39	33
One year to five years		37	21
<b>Minimum future lease payments</b>		<b>76</b>	<b>54</b>
Less future finance charges		(5)	(3)
<b>Present value of minimum lease payments</b>		<b>71</b>	<b>51</b>
Represented by:			
Current liability	10	39	31
Non-current liability	10	32	20
<b>Total</b>		<b>71</b>	<b>51</b>
<b>c Capital commitments</b>			
At balance date the Goulburn Broken CMA had commitments for capital expenditure payable as follows:			
Within one year		29	81
<b>Total</b>		<b>29</b>	<b>81</b>

#### d Contributions subject to restrictions

Catchment Management Authorities are responsible for the facilitation and coordination of catchments in an integrated and sustainable manner. This is achieved by undertaking projects funded by State and Federal Government programs. Goulburn Broken CMA receives funding for specific projects which are guided by the Regional Catchment Strategy and delivered in line with the Goulburn Broken CMA's Corporate Plan approved by the Minister for Environment and Climate Change and the Minister for Water.

The projects funded by the State and Commonwealth Governments can be undertaken over multiple financial years and funding is received at various stages of the project life based on contractual agreements. At the end of the financial year there are some projects that have not reached completion but will be completed within the contractual terms in future financial periods. At balance date Goulburn Broken CMA has significant cash and cash equivalents that will be utilised to complete these projects in future financial years. Refer Note 5 - Cash and Cash Equivalent for balances on hand.

### Note 17: Contingent assets and liabilities

There are no contingent assets or contingent liabilities at 30 June 2014 (2013: Nil).

### Note 18: Events occurring after balance sheet date

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

## Notes to the financial statements for the year ended 30 June 2014

### Note 19: Responsible persons related disclosures

#### a Responsible persons

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

The Hon Ryan Smith, MP, Minister for Environment and Climate Change	1 July 2013 to 30 June 2014
The Hon Peter Walsh, MLA, Minister for Water	1 July 2013 to 30 June 2014

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

Position		Appointed	Term Expires
Chair	M Chapman	1 July 2009; Deputy Chair 21 Oct 2011, Chair 1 October 2013	30 September 2017
Board Member	J Craven	1 October 2011 to 30 September 2013. Reappointed 14 October 2013	30 September 2017
Board Member	M Dalmau	1 October 2011	30 September 2015
Board Member	A Fox	1 October 2011, Deputy Chair 24 Oct 2013	30 September 2015
Board Member	A MacKenzie	1 October 2011 to 30 September 2013. Reappointed 14 October 2013	30 September 2017
Board Member	L McKenzie	14 October 2013	30 September 2017
Board Member	R Runnalls	1 October 2011	30 September 2015
Board Member	A Weston	14 October 2013	30 September 2017
CEO	C P Norman	15 December 2009	-
Acting CEO	S Wilson	30 October 2013 - 5 November 2013	-
Acting CEO	C Walters	25 December 2013 - 17 January 2014, 26 April 2014 - 11 May 2014	-

Position		Appointed	Term Expired
Chairman	P F Ryan	1 July 2009; Acting Chairman 1 July 2011 – 30 September 2011; Chairman 1 Oct 2011 - 30 September 2013	30 September 2013
Board Member	R Pell	1 July 2009	30 September 2013
Board Member	C Silverstein	1 October 2011	24 April 2014 (resigned)

#### 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	2014 no.	2013 no.
\$1-\$9,999	4	-
\$10,000-\$19,999	7	8
\$20,000-\$29,999	-	1
\$80,000-\$89,999	-	-
\$90,000-\$99,999	-	-
\$180,000-\$189,999	-	-
\$200,00-\$209,999	-	1
\$210,000-\$219,999	1	-
<b>Total</b>	<b>12</b>	<b>10</b>

The total remuneration of responsible persons referred to in the above bands was \$331,339 (2013: \$322,900) which includes \$34,183 (2013: \$27,159) paid in superannuation contributions.

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

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

#### c Remuneration of executives

The number of Executive Officers, other than responsible persons included under 'Remuneration of responsible persons' above, whose total remuneration exceeded \$100,000 during the reporting period are shown below in their relevant income bands. The base remuneration is shown in the third and fourth columns. Base remuneration is exclusive of bonus payments, long service leave payments, redundancy payments and retirement benefits. The total annualised employee equivalent provides a measure of full time equivalent executive officers over the reporting period. The main reason why total reported remuneration has increased is because of an additional Executive reaching the reporting threshold as a result of normal pay increases:

## Notes to the financial statements for the year ended 30 June 2014

### Note 19: Responsible persons related disclosures (Cont'd)

Remuneration bands	Total remuneration		Base remuneration	
	2014	2013	2014	2013
\$100,000 - \$109,999	1	1	1	1
\$110,000 - \$119,999	1	1	1	1
\$120,000 - \$129,999	-	1	2	1
\$130,000 - \$139,999	2	1	-	1
\$140,000 - \$149,999	1	1	1	1
\$150,000 - \$159,999	1	-	-	1
\$160,000 - \$169,999	1	1	1	-
Total amount	\$957,058	\$801,489	\$922,853	\$768,236
Total numbers	7	6	7	6
Total annualised employee equivalent*	6.6	5.8	6.6	5.8

\* Annualised employee equivalent is based on paid working hours of 38 ordinary hours per week over the 52 weeks for a reporting period.

There were no contractors engaged during the year with significant management responsibilities.

#### 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.

### Note 20: Economic dependence

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

### Note 21: Cash flow information

	Note	2014 \$000	2013 \$000
<b>a Reconciliation of cash</b>			
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	13,266	23,146
<b>b Reconciliation of cash flow from operations with net result for the year</b>			
Net result for the period		2,626	(3,648)
<b>Non-cash flows in net result</b>			
Depreciation		456	436
Amortisation		35	33
Net loss (gain) on disposal of non-current assets		(16)	(32)
<b>Changes in assets and liabilities</b>			
Decrease / (Increase) in receivables		(1,671)	(294)
(Increase) / Decrease in inventories		-	234
(Increase) / Decrease in prepayments		(146)	8
(Decrease) / Increase in provisions		35	(11)
Increase / (Decrease) in unearned revenue		(10,538)	(3,254)
Increase / (Decrease) in payables		(44)	(4,920)
Cash flows from operating activities		(9,263)	(11,448)



## Notes to the financial statements for the year ended 30 June 2014

### Note 21: Cash flow information (Cont'd)

#### c Property plant and equipment

During the financial year the Goulburn Broken CMA acquired computer equipment with an aggregate fair value of \$58,349 (2013: \$22,407) by means of finance leases. These acquisitions are not reflected in the cash flow statement.

### Note 22: Financial instruments

#### Interest risk rate exposures

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

	Weighted average interest rate %	Floating interest rates \$000	Fixed interest rate maturing			Non-interest bearing \$000
			1 year or less \$000	1 to 2 years \$000	2 to 3 years \$000	
<b>2013-14</b>						
Financial assets						
Cash	2.49	11,264	2,000	-	-	2
Receivables						2,783
<b>Total financial assets</b>		<b>11,264</b>	<b>2,000</b>	<b>-</b>	<b>-</b>	<b>2,785</b>
Financial liabilities						
Lease liabilities	7.87		(39)	(27)	(5)	
Payables						(2,540)
<b>Total financial liabilities</b>		<b>-</b>	<b>(39)</b>	<b>(27)</b>	<b>(5)</b>	<b>(2,540)</b>
<b>Net financial assets (liabilities)</b>		<b>11,264</b>	<b>1,961</b>	<b>(27)</b>	<b>(5)</b>	<b>245</b>
<b>2012-13</b>						
Financial assets						
Cash	2.80	21,144	2,000	-	-	2
Receivables		-	-	-	-	1,251
<b>Total financial assets</b>		<b>21,144</b>	<b>2,000</b>	<b>-</b>	<b>-</b>	<b>1,253</b>
Financial liabilities						
Lease liabilities	5.01		(31)	(20)	-	-
Payables	-	-	-	-	-	(2,641)
<b>Total financial liabilities</b>		<b>-</b>	<b>(31)</b>	<b>(20)</b>	<b>-</b>	<b>(2,641)</b>
<b>Net financial assets (liabilities)</b>		<b>21,144</b>	<b>1,969</b>	<b>(20)</b>	<b>-</b>	<b>(1,388)</b>

#### Fair value

The fair value of financial instruments must be estimated for recognition and measurement or for disclosure purposes.

Refer to Note 1(q) for accounting policy relating to disclosure of fair value measurement hierarchy.

The following tables present the entity's financial assets and financial liabilities measured and recognised at fair value at 30 June 2014 and 2013. It also shows the comparison between the carrying amount of the asset or liability and its fair value.

## Notes to the financial statements for the year ended 30 June 2014

### Note 22: Financial instruments (Cont'd)

	2014	Fair Value measurement at end of reporting period using:		
	Carrying amount \$000	Level 1 \$000	Level 2 \$000	Level 3 \$000
<b>Financial assets</b>				
Cash	13,266	13,266	-	-
Receivables	2,783	2,783	-	-
<b>Total financial assets</b>	<b>16,049</b>	<b>16,049</b>	<b>-</b>	<b>-</b>
<b>Financial liabilities</b>				
Lease liabilities	71	71	-	-
Payables	2,540	2,540	-	-
<b>Total financial liabilities</b>	<b>2,611</b>	<b>2,611</b>	<b>-</b>	<b>-</b>

	2013	Fair Value measurement at end of reporting period using:		
	Carrying amount \$000	Level 1 \$000	Level 2 \$000	Level 3 \$000
<b>Financial assets</b>				
Cash	23,146	23,146	-	-
Receivables	1,251	1,251	-	-
<b>Total financial assets</b>	<b>24,397</b>	<b>24,397</b>	<b>-</b>	<b>-</b>
<b>Financial liabilities</b>				
Lease liabilities	51	51	-	-
Payables	2,641	2,641	-	-
<b>Total financial liabilities</b>	<b>2,692</b>	<b>2,692</b>	<b>-</b>	<b>-</b>

There have been no transfers between levels during the period.

The fair value of financial instruments traded in active markets (such as publicly traded derivatives, and trading and available-for-sale securities) is based on quoted market prices at the end of the reporting period. The quoted market price used for financial assets held by the group is the current bid price. These instruments are included in level 1.

The carrying amounts of receivables and payables are assumed to approximate their fair values due to their short-term nature. 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 group for similar financial instruments. The fair value of current borrowings approximates the carrying amount, as the impact of discounting is not significant.

The fair value of the financial assets and liabilities is included at the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale.

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

### Note 23: Authority details

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

## 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](http://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 Goulburn Broken CMA understands that measuring progress in natural resource management is almost universally difficult and 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.

### 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 table below.

#### Evidence for three levels of decision-making

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 137. 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' were mandated as the way that 'management summary' and 'Catchment condition' reports would be structured in Victoria from 2009-10 (see page 92).

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

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

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

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 social-ecological system<sup>i</sup> in which humans are a part of nature. Ratings of Catchment condition for an investment area are therefore ratings of the social-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 social-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 'Community engagement' 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. 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<sup>1</sup> 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 of the Regional Catchment Strategy 2013-2019.

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'.

<sup>i</sup> The above discussions on social-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](http://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: Major strategic references

### LEGISLATION

#### FEDERAL LEGISLATION

*Aboriginal and Torres Strait Islander Heritage Protection Act 1984*

*Australian Heritage Commission Act 1975 (Register of the National Estate)*

*Environment Protection and Biodiversity Conservation Act 1999*

*Native Title Act 1993*

*Water Act 2007*

#### STATE LEGISLATION

*Aboriginal Heritage Act, 2006*

*Alpine Resorts (Management) Act 1997*

*Archaeological and Aboriginal Relics Preservation Act 1972*

*Building Regulations 1996*

*Catchment and Land Protection Act 1994*

*Climate Change Act 2010*

*Conservation, Forests and Lands Act 1987*

*Cooperative Management Agreement 2004*

*Crown Land (Reserves) Act 1978*

*Environment Protection Act 1970*

*Fisheries Act 1995*

*Flora and Fauna Guarantee Act 1988*

*Forests Act 1958*

*Heritage Rivers Act 1992*

*Land Act 1958*

*Mineral Resources (Sustainable Development) Act 1990*

*Murray-Darling Basin Act 1993*

*National Parks Act 1975*

*Parks Victoria Act 1998*

*Planning and Environment Act 1987*

*Reference Areas Act 1978*

*Subdivision Act 1988*

*State Environment Protection Policy (Waters of Victoria) 2003*

*Sustainable Forests (Timber) Act 2004*

*Traditional Owner Settlement Act 2010*

*Victorian Conservation Trust Act 1972*

*Victorian Environment Assessment Council Act 2001*

*Water Act 1989*

*Wildlife Act 1975*

*Victorian Environment Assessment Council Act 2001*

*Water Act 1989*

*Wildlife Act 1975*

### RELEVANT POLICIES, STRATEGIES and AGREEMENTS

#### INTERNATIONAL

China Australia Migratory Bird Agreement 1986

Convention of Migratory Species (Bomm Convention) 1979

Greenhouse Gas Protocol ([www.ghgprotocol.org](http://www.ghgprotocol.org))

Japan Australia Migratory Bird Agreement 1974

Ramsar Convention on Wetlands

Republic of Korea Australia Migratory Bird Agreement 2009

#### FEDERAL

A Directory of Important Wetlands in Australia (EA 2001)

A Framework for Determining Commonwealth Environmental Watering Actions 2009

Australia's Biodiversity Conservation Strategy 2010-2030

Australian Pest Animal Strategy 2007

Barmah-Millewa Environmental Management Plan (MDBA) 2005

Basin Salinity Management Strategy (MDBA 2001-2015)

Living Murray First Step Decision (MDBC 2003)

Murray-Darling Basin Plan 2012

Murray- Darling Native Fish Management Strategy

National Framework for the Management and Monitoring of Australia's Native Vegetation (2001)

National Greenhouse Accounts Factors – Department of Climate Change and Energy Efficiency

National Indigenous Reform Agreement (Closing the Gap)

National Water Quality Management Strategy (ARMCANZ and ANZECC 1992)

Strategy for Australia's National Reserve System 2009-2030

The Australian Weeds Strategy (revised 2007)

The Clean Energy Future Initiative

Wetlands Policy of the Commonwealth Government of Australia 1997

## RELEVANT POLICIES, STRATEGIES and AGREEMENTS (Cont'd)

### STATE

Advisory lists of rare and threatened species in Victoria (DEPI)
Alpine Resorts Strategic Plan 2004 (Alpine Resorts 2020 Strategy)
Biosecurity Strategy for Victoria 2009
Equal Opportunity Act 1995
Indigenous Partnership Framework 2007-10 (reviewed 2010)
Invasive Plants and Animal Policy Framework 2010
Native Vegetation Management – A Framework for Action (Revised 2005)
Occupational Health and Safety Act 2004
Our Water Our Future (DSE 2004)
Policy for Sustainable Recreation and Tourism on Victoria's Public Land 2002
Public Administration Act 2004 (employment and conduct principles)
Soil Health Strategy 2012 (DEPI)
State Environment Protection Policy (Groundwaters of Victoria) 1997
State Environment Protection Policy (Waters of Victoria) 2003
Sustainability Charter for Victoria's State Forests 2006
Threatened Species Recovery Plans (DEPI)
Victoria's Nature based Tourism Strategy 2008-2012
Victoria's Salinity Management Framework 2000
Victorian Action Plan for Second Generation Landcare 2002
Victorian Bushfires Royal Commission 2009
Victorian Bushfire Strategy 2008
Victorian Climate Change Adaptation Strategy 2013
Victorian Flood Management Strategy 1998

### REGIONAL

Dryland Landscape Strategy 2009-2011
Goulburn Broken Biodiversity Strategy 2010-2015
Goulburn Broken CMA Organisational Environmental Footprint Policy 2011
Goulburn Broken CMA Organisational Environmental Footprint Strategy and Action Plan 2012-2014
Goulburn Broken CMA Climate Change position paper 2007
Goulburn Broken Climate Change Integration Strategy 2012
Goulburn Broken Corporate Plan 2012-2013-2016-2017
Goulburn Broken Communications and Marketing Strategy 2013-2014
Goulburn Broken Community Engagement Strategy 2014-2015
Goulburn Broken Community and Landcare Support Plan (Draft) 2013
Goulburn Broken Dryland Salinity Management Plan 1990 (and reviews 1995, 2001, 2008)
Goulburn Broken Floodplain Management Strategy 2002-2012 (GB CMA 2002)
Goulburn Broken Invasive Plants and Animals Strategy 2010
Goulburn Broken Land Health Statement Draft 2012
Goulburn Broken Landcare Support Strategy 2010 Draft
Goulburn Broken Native Vegetation Plan 2003
Goulburn Broken Regional Catchment Strategy 2013-2019 (GBCMA 2014)
Goulburn Broken Regional River Health Strategy 2005-2015, Addendum (GB CMA 2010)
Goulburn Broken Regional Floodplain Management Strategy (Interim) 2014-2016
Goulburn Broken Water Quality Strategy 1996-2016 (GB CMA 1996)
Goulburn Broken Waterway Strategy 2014-2022 (GB CMA 2014)
Goulburn Broken Workforce Strategy 2013-2018
Goulburn Broken CMA Workforce Plan and Capability 2013-2018
Hume Regional Growth Plan
Hume Strategy for Sustainable Communities (Hume Strategy)
Monitoring Evaluation and Reporting Strategy for the Goulburn Broken Catchment 2004
Municipal Planning Schemes
Northern Region Sustainable Water Strategy
Review of Goulburn Broken Water Quality Strategy 1996-2016 (Brian Garrett and Associates 2001)
Shepparton Irrigation Region Catchment Implementation Strategy 1990-2020
Wetlands Strategy for the Goulburn Broken Catchment (GB CMA 2003)
Yorta Yorta Cooperative Management Agreement 2004
Yorta Yorta Nation Whole of Country Plan 2012-2017
Yorta Yorta Traditional Land Management Agreement 2010
Various Memoranda of Understanding



## Appendix 3: Roles of Catchment Partners

Agency / Authority / Organisation / Individual	Role relative to the development and implementation of the RCS
Australian Government - Department of Agriculture Fisheries and Forestry	The Department of Agriculture Fisheries and Forestry (DAFF) works to sustain the way of life and prosperity of all Australians. It does this by advising the government and our stakeholders how to improve the productivity, competitiveness and sustainability of our portfolio industries. Regionally, DAFF plays an important role in the implementation of the RCS funding projects across the Catchment.
Australian Government - Department of Sustainability, Environment, Water, Population and Communities	The Department of Sustainability, Environment, Water, Population and Communities (SEWPaC) is responsible for a number of matters including; environment protection and conservation of biodiversity, natural, built and cultural heritage, environmental research, and water policy and resources. SEWPaC administers the EPBC Act. Regionally, SEWPaC plays an important role in the implementation of the RCS by funding projects across the Catchment.
Alpine Resorts Coordinating Council and Alpine Resort Management Boards	<p>The Alpine Resorts Co-ordinating Council (ARCC) is a statutory body established under the Victorian Alpine Resorts Management Act 1997. It reports to the Minister for Environment and Climate Change and addresses issues of broad concern to alpine resort stakeholders and government and is focused on three key areas: Strategic positioning and advocacy, Co-operation and Research.</p> <p>The Alpine Resorts are permanent Crown land reserves, each managed by an Alpine Resort Management Board appointed by, and responsible to, the Minister for Environment and Climate Change. The Boards are also established under the Alpine Resorts Management Act 1997. The Alpine Resort Management Boards are responsible for the development, promotion, management and use of each Alpine Resort. They also provide or arrange required basic services and utilities including water and energy supply, and sewerage and garbage disposal. The Boards are required to carry out their functions in an environmentally sound way and in accordance with an approved strategic management plan. Each Board is represented on the ARCC.</p>
Community groups (e.g. CMNs, Landcare and environmental groups)	The Goulburn Broken Catchment's 91 natural resource management groups, 11 networks, and five sustainable farming groups mobilise community involvement, attract corporate, philanthropic and corporate funding, and influence and implement significant parts of the RCS in local areas, usually with an emphasis on onground works. They are represented on many of the CMA's advisory groups and steering committees.
Department of Transport, Planning and Local Infrastructure	<p>Providing guidance about planning in Victoria is one of the roles of the Department of Transport, Planning and Local Infrastructure (DTPLI).</p> <p>DTPLI is responsible for leading the development of Regional Growth Plans. Regional growth plans are being developed to provide broad direction for land use and development across regional Victoria. They will also provide more detailed planning frameworks for key regional centres. Regional Growth Plans will identify important economic, environmental, social and cultural resources to be preserved, maintained or developed. The Goulburn Broken Catchment sits within the Hume Regional Growth Plan area.</p>
Department of Environment and Primary Industries	<p>The Department of Environment and Primary Industries (DEPI) is responsible for land and fire, regional services, natural resources and environment, water, agriculture and fisheries. DEPI designs and delivers policies and programs that enable Victoria's primary industries to sustainably maximise the wealth and wellbeing they generate. It is responsible for protection and management of natural resources.</p> <p>DEPI performs its range of functions in partnership with service delivery partners including catchment management authorities. It is responsible for administering the CaLP Act 1994 and other important legislation. Regionally, DEPI provides funding and technical, extension and research services.</p>
Environment Protection Authority	The Environment Protection Authority's (EPA) sole role is to regulate pollution and has independent authority to make regulatory decisions under the Environment Protection Act 1970. Based on its regulatory risk model EPA prioritises its compliance and enforcement activity by addressing the biggest risk to the environment and health. EPA aspires to create a healthy environment that supports a liveable and prosperous Victoria. By effectively regulating pollution in Victoria, we strive to deliver clean air, healthy waterways, safe land and minimal disturbances from noise and odour for Victorians.

### Appendix 3: Roles of Catchment Partners (Cont'd)

Agency / Authority / Organisation / Individual	Role relative to the development and implementation of the RCS
Goulburn Broken Catchment Management Authority	<p>The Goulburn Broken Catchment Management Authority (CMA) is a statutory authority established under the Catchment and Land Protection Act 1994. It plays a pivotal role in NRM in the Catchment.</p> <p>There are many policies that inform this role, listed in Appendices three and four. The Goulburn Broken CMA prepares the Goulburn Broken RCS and coordinates and monitors its implementation. It does this by working with all tiers of government, other agencies, community groups, industry, individuals, and research and funding organisations.</p>
Goulburn-Murray Water	<p>Goulburn-Murray Water (GMW) has substantial interaction with the environment, partnerships with a number of stakeholders and legislative requirements leading to a large and diverse environmental risk profile. GMW aims to maximise water resource availability for customer use, while meeting key environmental goals and contributing to a sustainable and productive natural environment. GMW's environmental objectives are listed in the Environment Policy Statement. In summary GMW is committed to minimising and preventing any adverse impact on the environment caused by our activities.</p> <p>Activities and initiatives include catchment management (including salt interception management), surface and sub-surface drainage support, water quality and land management planning.</p>
GMW Connections Project	<p>The GMW Connections Project is investing more than \$2 billion to develop a water delivery network to match these changing needs and to support the many, varied and exciting opportunities for irrigated agriculture across Northern Victoria. The Project will also provide important opportunities and benefits for environmental and urban water users and will ensure the ongoing contribution of irrigated agriculture to our regional, state and national economies.</p>
Goulburn Valley Water	<p>Goulburn Valley Water's (GVW) delivery of water and sewage services to its customers has a considerable impact on non-renewable natural resources. Primary objectives of the organisation include a commitment to improve environmental performance by minimising resource demand and preventing pollution. In order to translate these commitments into practice, the organisation has established an Environment Policy and an Environmental Management System (EMS).</p>
Individuals / land managers	<p>Under the CaLP Act 1994, responsibilities of land managers include (but are not limited to) take all reasonable steps to:</p> <ul style="list-style-type: none"> <li>• Prevent the spread of, and as far as possible eradicate, established pest animals</li> <li>• Eradicate regionally prohibited weeds</li> <li>• Prevent the growth and spread of regionally controlled weeds</li> <li>• conserve soil and avoid contributing to land degradation on someone else's land.</li> </ul> <p>Land managers must also seek authority to interfere, obstruct or carry out works in relation to a waterway, bore or drainage course, or (in some cases) a private dam.</p> <p>Regionally, landholders across the Catchment invest significant resources (time, money and land) into activities that contribute to meeting the objectives of the RCS. This contribution is further outlined in the People section of the Assets of the Goulburn Broken Catchment supplement.</p>
Industry groups	<p>Peak industry groups such as Dairy Australia/Murray Dairy and the Victorian Farmers Federation can strongly influence catchment management through their networks with regional land managers.</p>
Local government	<p>Services provided by councils are diverse. They include property, economic, human, recreational and cultural services. Councils also enforce State and local laws relating to such matters as land use planning, environment protection, public health, traffic and parking and animal management. They maintain significant infrastructure, provide a range of services and enforce various laws for their communities (DPCD, 2012a).</p> <p>Local government plays a significant role in land use planning, which is administered under the Planning and Environment Act 1987, with each municipality having a local planning scheme that describes directions and controls for developments (DPCD, 2012b). They also have other important roles including public awareness, engagement and education as well as local partnerships such as Conservation Management Networks.</p> <p>Regionally, the Goulburn Broken CMA actively participates in development of environment strategies for the Benalla Rural City, Campaspe Shire, City of Greater Shepparton, Mansfield Shire, Moira Shire and Strathbogie Shire Councils. The Goulburn Broken CMA is a key member and supporter of the Goulburn Broken Local Government Biodiversity Reference Group led by Moira Shire in partnership with the other local governments represented in the catchment.</p>

Agency / Authority / Organisation / Individual	Role relative to the development and implementation of the RCS
Other groups	The Goulburn Broken CMA and community and advisory groups develop close relationships with many organisations as needs arise during research, planning and implementation, including Victorian Farmers Federation, the Goulburn Broken Greenhouse Alliance, Committees of Management (Crown land reserves) and the various environment and climate action groups across the Catchment.
Parks Victoria	Under the <i>Parks Victoria Act 1998</i> , Parks Victoria's (PV) responsibilities are to provide services to the State and its agencies for the management of parks, reserves and other public land. With the approval of the Minister, it may also provide land management services to the owner of any other land used for public purposes. The Act requires that, in carrying out its functions, Parks Victoria must not act in a way that is not environmentally sound. Parks Victoria's responsibilities encompass the management of: all areas reserved under the National Parks Act 1975, metropolitan waterways and adjacent land under the Water Industry Act 1994, nominated Crown land reserved under the Crown Land (Reserves) Act 1978, conservation reserves reserved under the Crown Land (Reserves) Act 1978 and managed in accordance with approved land use recommendations under the Land Conservation Act 1970, areas reserved under the Heritage Rivers Act 1992, planning for all Ramsar sites and management of some sites, piers and jetties in Port Phillip Bay and Western Port and recreational boating on these Bays pursuant to powers conferred by the Marine Act, 1988 and the Port of Melbourne Authority Act 1958, other areas as specified under the Parks Victoria Act 1998 (Parks Victoria, 2012b) Regionally, Parks Victoria and the Goulburn Broken CMA work jointly in the delivery of Commonwealth and State funded projects.
Traditional Owners	The role of Traditional Owners is outlined in the introduction of this document. In addition, Registered Aboriginal Partners have responsibilities relating to the management of Aboriginal cultural heritage under the Act. These include evaluating Cultural Heritage Management Plans, providing advice on applications for Cultural Heritage Permits, decisions about Cultural Heritage Agreements and advice or application for interim or ongoing Protection Declarations. Trust for Nature (TfN) is Victoria's specialist private-land conservation statutory entity whose statewide services include covenanting, land purchase, ongoing post-protection landowner support, short-term management agreements and environmental market agreements. Conservation covenants protect the natural features of an area in perpetuity, and ensure, through management plans, that any use is compatible with the conservation of the land's natural or cultural values. TfN works in securing the permanent protection and ongoing management of high quality remnants within the Catchment, adding value to the conservation of biodiversity, community engagement and the National Reserve System.
Victorian Catchment Management Council	The Victorian Catchment Management Council (VCMC) is appointed under the CaLP Act 1994. Its statutory roles are to advise the Minister for the Environment and the Minister for Water, and other Ministers as requested, on land and water management issues; to report annually on operation of the CaLP Act; and report every five years on the environmental condition and management of Victoria's land and water resources, through the VCMC Catchment Condition Report.

## Appendix 4: Outputs - detailed list of achievements

Standard GB Threat or Impact Managed	Output	Land & Biodiversity Program		
		Target <sup>i</sup>	Achieved	% achieved
<b>Threat</b>				
Land and water use practices				
Stock grazing (ha = terrestrial; km = riparian)	Fence terrestrial remnant vegetation (ha) <sup>ii</sup>	473	1,004	212
	Fence wetland remnant (ha)	88	111	126
	Fence stream/river remnant (ha)			
	Fence stream/river remnant (km)			
	Off-stream watering (no.)			
	Binding Management Agreement (license, Section 173, covenant) (ha) <sup>iii</sup>	75	0	0
<b>Induced Threat</b>				
Saline water and high watertables				
Surface water <sup>r</sup>	Landform/lasergrading (ha) <sup>iv</sup>			
	Drain – primary (km) <sup>v</sup>			
	Drain – community (km)			
	Weir – replace (no.)			
	Farm reuse system (no.) <sup>vii</sup>			
	Drain – additional water diverted from regional drains (ML)			
	Irrigation systems – improved (ha) <sup>viii</sup>			
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.) <sup>x</sup>			
	Bed and bank protection actions (km)			
Changed flow pattern	In-stream & tributary erosion controlled (km)			
	Water allocated - eg wetlands (ML) <sup>x</sup>			
Weed invasion	Weeds – woody weed management (ha)			
	Weeds – aquatic weeds controlled/eradicated (km)			
	Targeted infestations of weeds in high priority areas covered by control programs (ha) <sup>xi</sup>	1,698	2,947	174
Pest Animals	Area of high priority rabbit infested land that are covered by control programs (ha)	2,185	4,679	214
	Area of high priority fox infested land covered by control programs (ha)	25,129	26,187	104
<b>Impact</b>				
Habitat loss - terrestrial	Revegetation - plant natives within or next to remnants (ha) <sup>xiii</sup>	748	1,158	155
	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 – Threatened species	Establish SEAR (Significantly Enhanced Aquatic Refugia) (no.)			
	Threatened Species Recovery Plan and Action Statements (no. projects)			
<b>Planning</b>	Whole farm plans (no.) <sup>xiii</sup>			

- i Targets are determined by considering levels of government funding as listed in the Corporate Plan only (government funds or funds from other sources arriving after the Corporate Plan was finalised are not considered within these targets).
- ii Includes 360 hectares of remnant protection in Bushfire Recovery Program in 2009-10.
- iii This target is for the first year of a five-year project target of 375 hectares and the area will only be reported once covenants are on title, which takes more than 12 months.
- iv Assumptions: 2010-11 = area put under Whole Farm Plans, including modernised + Farm Water Program onground achievements (226 hectares); 2011-12 = 90 per cent of area under Whole Farm Plans (25,841) + 70 per cent of Farm Water Program onground achievements (965; 1,783 was used to calculate figures in 2011-12 report); 2012-13 = Farm Water Program onground achievements (2,163) + 60 per cent of area put under Whole Farm Plans (new (8,424) + modernised (9,075)); 2013-14 = Farm Water Program' SIR onground achievements (3,736) + 60 per cent of area put under Whole Farm Plans (new (4,224) + modernised (4,403) – Farm Water Program's SIR onground achievements (3,736)).
- v Surface water management enables the removal of excess rainfall run-off from irrigated lands, alleviating soil salinity. Nutrient loads collected by the drains are managed through drainage reuse and management plans, and monitored against the resource condition target.

- vi Fencing and laneways are relocated along primary drains to control stock. Drains are also hydro-mulched and seeded to provide vegetative cover on bare batters. 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.
- vii Reuse dams allow for the collection and re-irrigation of high nutrient run-off, reducing the water and nutrient loads leaving the farm. Figures include Farm Water Program installations.
- viii Assumptions: 2013-14 = Farm Water Program's SIR onground achievements (laser grading + overhead spray + drip; 3,736 + 567 + 0) + 70 per cent of area put under Whole Farm Plans (new (4,224) + modernised (4,403) less Farm Water Program's SIR onground achievements). This assumption is being reviewed: the assumed achievement above is likely to be the right order of magnitude, but is likely to be adjusted significantly. Achievements for previous years are also being reviewed.
- ix Stormwater management projects are undertaken on a one-to-one funding basis with local government.
- x Target cannot be set with any confidence because achievement is prone to extreme variation, being affected by climatic and seasonal conditions. Volumes used since 2000-01 were reconciled in 2014 and some figures were adjusted. The NSW component of water delivered to Barmah Forest is included in these figures.

2013-14																	
Sustainable Irrigation Program			River & Wetland Health & Floodplain Management Program			Total Catchment			Total achieved								
Target <sup>i</sup>	Achieved	% achieved	Target <sup>i</sup>	Achieved	% achieved	Target <sup>i</sup>	Achieved	% achieved	2012-13	2011-12	2010-11	2009-10	2008-09	2007-08	2006-07	2005-06	
						473	1,004	212	1,783	728	1,112	1,276	451	710	769	519	
0	17					88	128	145	73	160	78	8	609	1,794	22	6	
			0	87		0	87		126	337	354	n/a	2,563	2,536	726	115	
20	28	140	19	14	71	39	42	106	6.8	26	93	63	185	315	162	n/a	
			2	3	150	2	3	150	1	17	21	48	122	95	73	89	
						75	0	0	329	360	434	906	363	373	1,625	758	
4,262	6,671	157				4,262	6,671	157	12,662	24,505	19,546	14,170	20,476	8,525	4,490	7,700	
									1	0	1.1	6	6	9	6	11	
										1	1.4	4	5			6	
32	64	200				32	64	200	25	25	7	76	66	48	56	70	
													0	200	75	235	
6,449	7,330	114				6,449	7,330	114		24,145	20,050	14,217	23,059	8,967	6,060	8,580	
												152	75	391	718	1,543	
													1	1		3	
										1	0	9	11	24	19	11	
										75	0	1,827	1,794	3,237	3,462	1,800	
															31	97	
										2		1	1	1	3	2	
			0	0.20		0	0.20		0.65	19	16	5	8	13	12	16	
			0.95	1.00	105	0.95	1.00	105			131	207	102	543	19	502	
				714,378			714,378		299,667	633,476	454,694	3,190	840	1,235		513,000	
			115	210	183	115	210	183								75	
			0	3		0	3		77	76	418	27	26	53	39	33	
100	670	670	1	26	2,600	1,799	3,643	202	953	1,372	424	38,525	36,964	11,138	9,637	69,437	
			20	20	100	2,205	4,699	213	2,749	882	1,121	5,700	1,530	200		10,150	
			100	315	315	25,229	26,502	105	27,000	60,000	57,507	108,250	0	45,570	94,410	108,856	
			30	53	176	778	1,211	156	2,957	1,995	1,383	1,403	945	460	758	1,177	
									517							117	
																1	
			2	2	100	2	2	100				1					
										2			1	8	6	4	
			15	15	100	15	15	100		20	0	16	59	30	2	1.3	
											36	12	29	37	34	13	
146	79	54				146	79	54	186	263	331	259	341	369	232	185	

- xi 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 achievement of 55,000 hectares for weeds in high priority areas and 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). 2012-13 figures do not include 9,315 hectares for weeds and 10,500 hectares for rabbit control (refer to investment table Invasive plants and animals). 2013-14 figures do not include 12,880 hectares for weeds and 6,175 hectares for rabbit control (refer to investment table Invasive plants and animals).
- xii 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 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

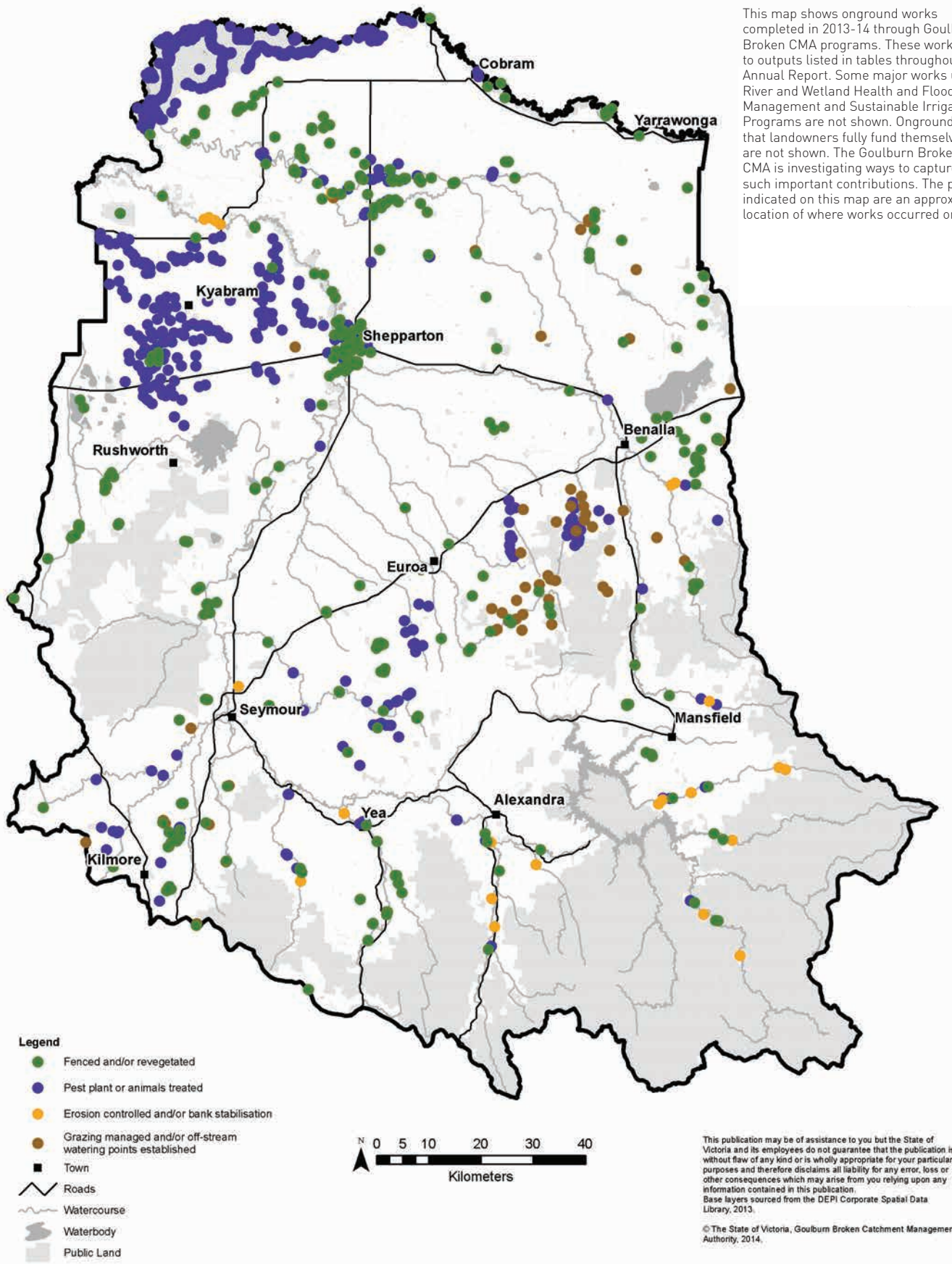
- the revegetation figures. Natural regeneration from the Sustainable Farming Practices project are also included: 386 hectares for 2010-11, and 515.8 hectares for 2011-12 and 551.38 hectares for 2012-13. Natural regeneration from the Targeting Landscape Scale Biodiversity project are included: 712 hectares for 2011-12 and 966 hectares for 2012-13. Natural regeneration from the North and Central Biolinks project are included: 159 hectares for 2012-13. 2013-14 achievements do not include 1,080 hectares of revegetation achieved outside the Catchment through the Sand Ridge Woodlands project that Goulburn Broken CMA delivers in partnership with Murray Local Land Services and NSW National Parks and Wildlife Service.
- xiii Figures for total catchment historically include those outside of Sustainable Irrigation Program also, which were for comprehensive Level 2 whole farm plans, equivalent to Shepparton Irrigation Region's whole farm plan. Level 1 is a short course that is a precursor to Level 2 and not included in these figures. In 2012-13 whole farm plans under the Land and Biodiversity Program were achieved by Department of Environment and Primary Industries, using funding received outside of the Corporate Plan.



# Appendix 5: Works

1 July 2013 to 30 June 2014

This map shows onground works completed in 2013-14 through Goulburn Broken CMA programs. These works relate to outputs listed in tables throughout this Annual Report. Some major works under River and Wetland Health and Floodplain Management and Sustainable Irrigation Programs are not shown. Ongoing works that landowners fully fund themselves are not shown. The Goulburn Broken CMA is investigating ways to capture such important contributions. The points indicated on this map are an approximate location of where works occurred only.



Appendices

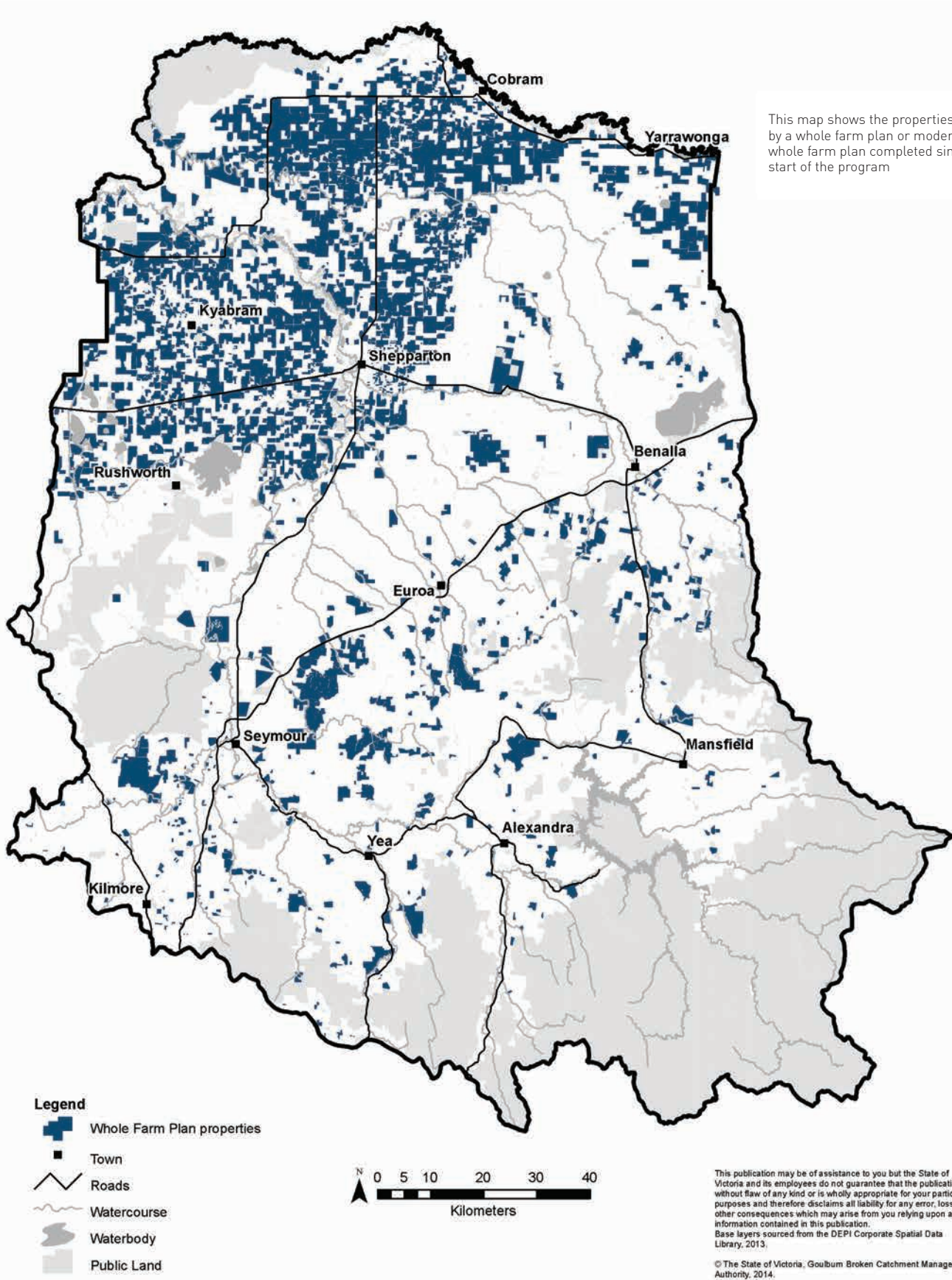
This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequences which may arise from you relying upon any information contained in this publication. Base layers sourced from the DEPI Corporate Spatial Data Library, 2013. © The State of Victoria, Goulburn Broken Catchment Management Authority, 2014.



# Appendix 6: Properties covered by a whole farm plan

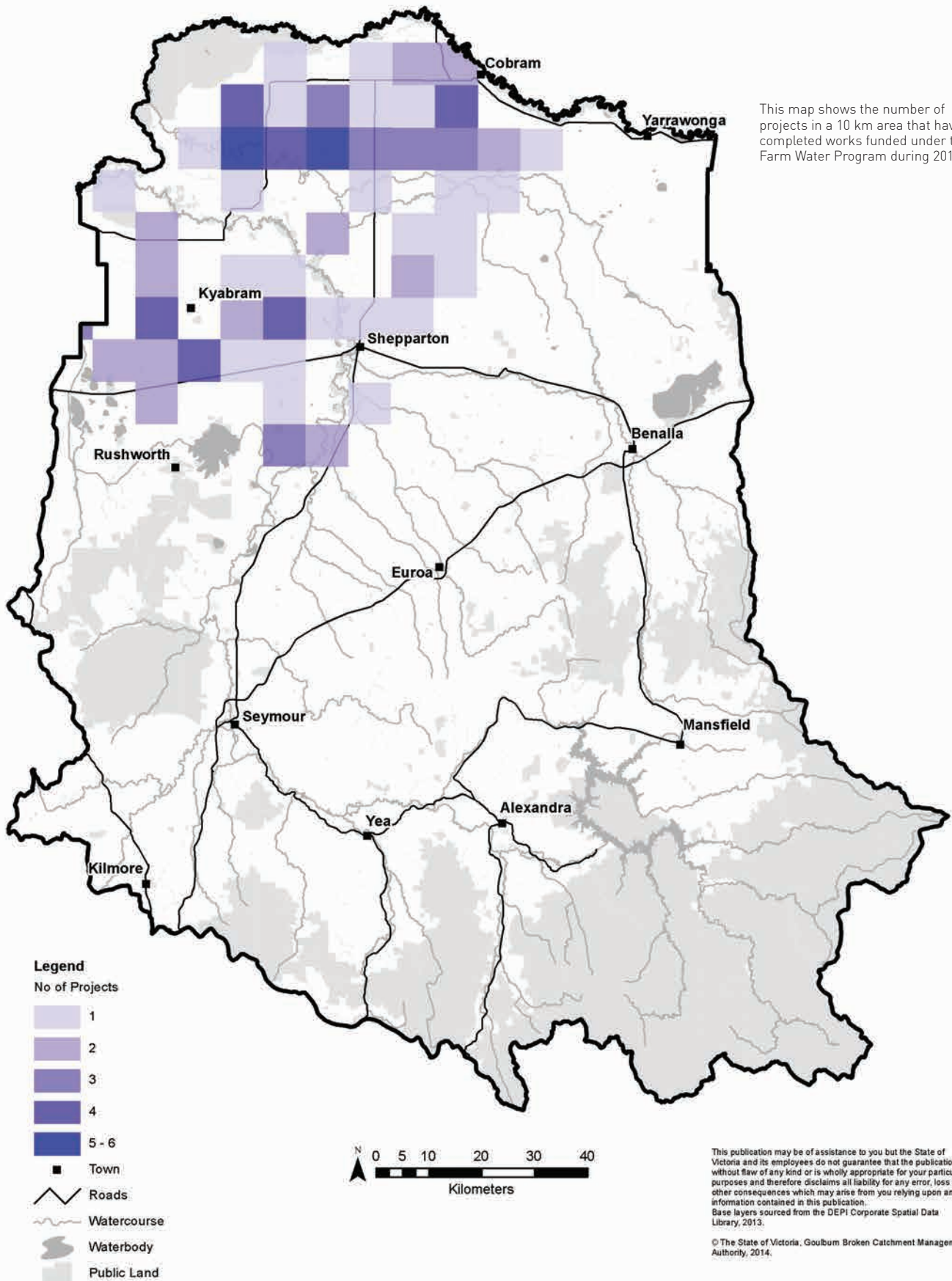
To 30 June 2014

This map shows the properties covered by a whole farm plan or modernised whole farm plan completed since the start of the program



# Appendix 7: Farm Water Works

1 July 2013 to 30 June 2014



## Appendix 8: Compliance with the *Protected Disclosures Act 2012*

The *Protected Disclosures Act 2012* was part of a package of integrity reforms introduced by the Victorian Government, which also established the Independent Broad-based Anti-corruption Commission (IBAC).

The Protected Disclosures Act enables people to make disclosures about improper conduct within the public sector without fear of reprisal. It aims to ensure openness and accountability by encouraging people to make disclosures and protecting them when they do.

### What is a 'protected disclosure'?

A protected disclosure is a complaint of corrupt or improper conduct by a public officer or a public body.

The Goulburn Broken Catchment Management Authority is a "public body" for the purposes of the Act.

### What is 'improper or corrupt conduct'?

Improper or corrupt conduct involves substantial:

- mismanagement of public resources; or
- risk to public health or safety or the environment; or
- corruption.

The conduct must be criminal in nature or a matter for which an officer could be dismissed.

### How do I make a 'Protected Disclosure'?

You can make a protected disclosure about the Goulburn Broken Catchment Management Authority or its board members, officers or employees by contacting the Department of Environment and Primary Industries or Independent Broad-Based Anti-Corruption Commission on the contact details provided below.

Please note that the Goulburn Broken Catchment Management Authority is not able to receive protected disclosures.

### How can I access the Goulburn Broken Catchment Management Authority's procedures for the protection of persons from detrimental action?

Goulburn Broken Catchment Management Authority has established procedures for the protection of persons from detrimental action in reprisal for making a protected disclosure about Goulburn Broken Catchment Management Authority or its employees. You can access Goulburn Broken Catchment Management Authority's procedures on its website at: [www.gbcma.vic.gov.au](http://www.gbcma.vic.gov.au)

### Contacts

#### Department of Environment and Primary Industries (DEPI)

Jennifer Berensen, Senior Advisor, Privacy & Ombudsman

Department of Environment and Primary Industries

Address: PO Box 500, East Melbourne Vic 3002

Ph: 9637 8697

Website: [www.depi.vic.gov.au](http://www.depi.vic.gov.au)

#### Independent Broad-Based Anti-Corruption Commission (IBAC) Victoria

Address: Level 1, North Tower, 459 Collins Street, Melbourne Victoria 3001.

Mail: IBAC, GPO Box 24234, Melbourne Victoria 3000

Internet: [www.ibac.vic.gov.au](http://www.ibac.vic.gov.au)

Phone: 1300 735 135

Email: see the website above for the secure email disclosure process, which also provides for anonymous disclosures.



## Appendix 9: 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
<b>Ministerial directions</b>		n.a
<b>Report of operations</b>		2
<b>Financial reporting directions affecting the financial statements</b>		
03A	Accounting for Dividends	n.a
07A	Early Adoption of Authoritative Accounting Pronouncements	114
8B	Consistency of Budget and Department Reporting	n.a
09A	Department Disclosure of Administered Assets and Liabilities by Activity	n.a
10	Disclosure Index	143
11A	Disclosure of Ex-gratia Payments	n.a
13	Disclosure of Parliamentary Appropriations	112
17A	Long Service Leave Wage Inflation and Discount Rates	121
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	126
100	Financial Reporting Directions – Framework	108
101	First-time Adoption	n.a
102	Inventories	111
103E	Non-Current Physical Assets	118
104	Foreign Currency	n.a
105A	Borrowing Costs	105, 114
106	Impairment of Assets	113
107A	Investment Properties	n.a
108A	Classification of Entities as For-Profit	n.a
109	Intangible Assets	110
110	Cash Flow Statement	107
112D	Defined Benefit Superannuation Obligations	121
113	Investments in Subsidiaries, Jointly Controlled Entities and Associates	n.a
114A	Financial Instruments – General Government Entities and Public Non Financial Corporations	128
115	Non-Current Physical Assets – First-time Adoption (Withdrawn 2 July 2014)	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
119A	Contribution by Owners	108
120H	Accounting and Reporting Pronouncements Applicable to 2013-2014 Reporting Period	114
121	Infrastructure assets (Water/Rail) (Withdrawn 2 July 2014)	n.a
<b>Financial statements required under Part 7 of the Financial Management Act 1994; Standing direction 81</b>		
4.2 (a)	Statement of Changes in Equity	107
4.2 (f)	Compliance with model financial report	108
4.2 (b)	Comprehensive Operating statement	105
4.2 (b)	Balance sheet	106
4.2 (b)	Cash flow statement	107
4.2 (b)	Notes to the financial statements	108
4.2 (c)	Accountable officer's declaration	102
4.2 (c)	Compliance with Australian accounting standards and other authoritative pronouncements	108
4.2 (c)	Compliance with ministerial directions	108
4.2 (d)	Rounding of amounts	108

## Disclosure index (cont'd)

Legislation	Disclosure required	Page
<b>Other financial reporting direction disclosures in notes to the financial statements</b>		
112B	Employee Superannuation funds	123
SD 4.5.5	Risk management compliance	83
SD 4.5.5.1	Insurance Attestation	83
SD 4.2(g)	General information requirements	91
SD 4.2(i)	Sign-off requirements	2, 83, 102
<b>Financial reposting directions affecting the repost of operations</b>		
12A	Disclosure of Major Contracts	101
14	Disclosures in Annual Reports by Public Sector Superannuation Schemes	n.a
15B	Executive Officer Disclosures in the Report of Operations by Departments	n.a
	<i>Standard Disclosures in the Report of Operations</i>	
	Manner of establishment and the relevant ministers	6
	Objectives, functions, powers and duties	82
	Nature and range of services provided	6
	<i>Management and Structure</i>	
	Organisational structure, names and functional areas of responsibility of senior officers	7
	Names of Board members	84
	<i>Financial and other information</i>	
	Statement of workforce data for current and previous financial year	71
	Employment and conduct principles (merit and equity)	70
	Five year summary of the financial results	99
22E	Significant changes in financial position during the year	100
	Operational and budgetary objectives and performance against objectives	100
	Major changes or factors affecting performance	100
	Subsequent events which will affect operations in future years	125
	Details of consultancies over \$10,000	101
	Details of consultancies under \$10,000	101
	Application and operation of Freedom of Information Act 1982	87
	Application and operation of Protected Disclosures Act 2012	87
	Building and maintenance provisions of the Building Act 1993	89
	Statement on National Competition Policy	89
	Occupational health and safety	73
	Statement of availability of information	91
	Environmental performance	77
24C	Reporting of Office –based Environment Data by Government Entities	77
25B	Victorian Industry Participation Policy Disclosures in the Report of Operations	101
26A	Accounting for VicFleet Motor Vehicle Lease Arrangements on or after 1 February 2004	n.a
27C	Presentation and Reporting of Performance Information	n.a.
29	Workforce data disclosures	71
30A	Standard requirements for the design and print of annual reports	inside front cover

## Glossary of 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.

**Bioregions:** Large, geographically distinct areas of land with common biophysical characteristics such as geology, landform patterns, climate and ecological features.

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

**Carryover** was introduced in northern Victoria in early 2007 as an emergency drought measure to allow entitlement holders to carry over some unused water allocation to use in the following season.

**Foodbowl Modernisation** plan was a proposal put to the State Government of Victoria by a consortium of community leaders in the Goulburn Murray Irrigation Area to share the water savings created as a result of upgrading irrigation infrastructure.

**Minimum (river) flow:** a minimum level of flow that the water authority needs to maintain in the river at a particular location, or a trigger below which water cannot be harvested from the river. Minimum flows are usually specified in water authority bulk entitlements or in environmental entitlements. (See also 'qualification of rights' below.)

**Modernised Whole farm Plan** is a plan revised to take account of the changed regional channel delivery infrastructure as a result of modernisation.

**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.

**Resilience:** The capacity of a system to absorb disturbance and reorganise while undergoing change so as to still retain essentially the same function, structure, identity, and feedbacks.

**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 DEPI and the Murray-Darling Basin Authority for entering data to complement data already in the A Register under the salinity and drainage strategy.

**Social-ecological systems:** Linked and generally similar systems of people and nature, taking into account cultural, political, social, economic, ecological and technological components.



## Abbreviations

AASB	Australian Accounting Standards Board
AQF	Australian Qualifications Framework
ARI	Arthur Rylah Institute
CaLP	Catchment and Land Protection Act 1994
CEO	Chief Executive Officer
CEWH	Commonwealth Environmental Water Holder
CFI	Carbon Farming Initiative
CfoC	Caring for our Country
CMA	Catchment Management Authority
CMN	Conservation Management Network
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DEPI	Department of Environment and Primary Industries
EC	Electrical Conductivity unit
ENRC	Environment and Natural Resources Committee
EPBC	Environment Protection and Biodiversity Conservation Act 1999
FIEP	Fruit Industry Employment Program
FTE	Full-time Equivalent
FWP	Farm Water Program
GB RRHS	Goulburn Broken Regional River Health Strategy
GHG	Greenhouse Gas
GL	Gigalitre
GMW	Goulburn-Murray Water
GST	Goods and Services Tax
ha	hectare
ICT	Information and Communication Technology
km	kilometre
KPI	Key Performance Indicator
L	Litre
LHS	Land Health Statement
LWMP	Land and Water Management Plan
MDBA	Murray-Darling Basin Authority
ML	Megalitre
MLA	Member of the Legislative Assembly
MLC	Member of the Legislative Council
MoU	Memorandum of Understanding
no.	Number
NRM	Natural resource management
NRIP	Natural Resources Investment Program
RCS	(Goulburn Broken) Regional Catchment Strategy
RSMP	Regional Salinity Management Plan
SES	Social-ecological system
SHAP	Soil Health Action Plan
SIPAG	Sustainable Irrigation Program Advisory Group
SIR	Shepparton Irrigation Region
SIRCIS	Shepparton Irrigation Region Catchment Implementation Strategy
tCO <sub>2</sub> -e	Tonnes of carbon dioxide (CO <sub>2</sub> ) emitted
TCV	Treasury Corporation of Victoria
TfN	Trust for Nature
U3A	University of the third age
VEWH	Victorian Environmental Water Holder
VLG	Victorian Landcare Grants
YYNAC	Yorta Yorta Nation Aboriginal Corporation

## Index

A	Page
Abbreviations	146
Annual Scorecards	16
Audit, Risk and Compliance Committee	82

B	
Balance Sheet	106
Biodiversity	57
Board Directors	84
Board attendance	85
Business structure	7

C	
<i>Catchment and Land Protection Act, 1994</i>	86
Catchment area	9
Catchment Condition Statement	92
Cash Flow Statement	107
Certification to the financial statements	102
Chair's review	1
Chief Executive Officer's report	3
Climate Change	31
Consultants	101
Contact Information	back cover

D	
Disclosure Index	143
Dryland salinity	64

E	
Environmental Footprint	77
Environmental flows	42

F	
Financial report	98
Financial results summary	99
Financial statements	102
Floodplain management	51
<i>Freedom of Information Act, 1982</i>	87

G	
Glossary of Terms	145
Goulburn Broken profile	6
Governance	80

H	
Headline themes	92
Highlights for 2013-14	5
Human resources	70

I	
Independent Auditors Report	103
Invasive Plants and Animals	67

J,K,L	Page
Key events	11
Land Health	64

M	
Management Team and Program Managers	75

N	
Notes to the financial statements	108

O	
Occupational health and safety	73
<i>Occupational Health and Safety Act, 2004</i>	90
Our staff	73

P	
<i>Public Administration Act, 2004</i>	86
<i>Privacy Act, 2000</i>	88
<i>Planning and Environment Act, 1987</i>	88
Powers and duties	6
<i>Protected Disclosures Act, 2012</i>	87, 142

Q,R	
Regional Catchment Strategy	22
Research and development	24
Riparian and Instream habitat	42
River health	42

S,T,U,V	
Shepparton Irrigation Region salinity	35
Significant accounting policies	108
Staff list	inside back cover

W,X,Y,Z	
<i>Water Act, 1989</i>	86
Water quality	42
Workforce age profile	71

## Recognising a major NRM contribution

### Allen Canobie



When it comes to giving back and getting involved in the community Numurkah's Allen Canobie clearly walks the talk.

Forty years ago, Allen and wife Margaret moved to the area with their children, Julie and Kerry. Their third child Scott was born soon after.

Allen, who came from a dairy farming family in Gippsland and Margaret, a Melbourne girl, quickly became involved in local activities as well as running two dairy farms and a beef cattle stud.

Allen joined Apex and later Rotary (including time as president), which he says provided valuable skills 'in getting things done'.

This drive to make a difference came to the fore again during his time as a Councillor and President of the former Numurkah Shire Council.

'We were looking at implementing uniform planning processes across Numurkah and the adjoining shires,' Allen says. 'I could really see the sense in this, particularly when it came to making sure the region remained productive.'

During this time Allen was nominated as the council's representative on the newly formed Salinity Program Advisory Council (SPAC).

'It was pretty clear at the time (the mid-'80s) that rising watertables and salinity were real threats and something desperately needed to be done if farming in this region was to remain sustainable and productive,' he says.

Allen says the work done by the SPAC to develop a management plan for the region was invaluable in getting the need for urgent action on the threat of salinity to production on the local, state and federal government agenda.

He believes there is more that needs to be done to address the issue across the region, which is why he has stayed involved in the various committees, including Shepparton Irrigation Region Implementation Committee and more recently Sustainable Irrigation Program Advisory Committee, which have evolved over time to keep salinity top of mind with decision makers.

'It's still an issue – large areas still don't have access to drainage. To remain productive and sustainable we need to have good surface and sub-surface drainage. I believe three things drive (the priority given to take) action on salinity and drainage – wet years, commodity prices and government contribution. When things are going okay it's

easy to get a bit blasé and, it's no surprise really, during drought people's minds are on other things – such as getting water to your stock and crops – but you've got to take the long-term view.'

Tackling salinity may have provided the initial impetus for Allen's interest in protecting and managing the natural resources that underpin the region's agricultural and economic prosperity but he says as his understanding of the inter-connectedness of land, water, biodiversity and people grew, so did his interest and concern for other environmental issues.

'Every property we've bought has been an improver,' he says. 'We've had to do lots of clearing of junk and weeds and plenty of revegetation and fencing (to protect vegetation),' he says. 'Margaret's done a huge amount of that planting – she's planted hundreds of trees.'

As well as involvement in the local Landcare group, Allen has been instrumental in the transformation of Kinnairds Wetland.

The vegetation in the wetland, which is fed by flows from the Muckatah Surface Water Management Scheme, helps slow and filter the drainage water before it flows in to the Goulburn River.

'I've been involved in the Friends of Kinnairds since the start. We recognised early on its potential as a place where people could walk and ride and see birds and wildlife in their natural environment. Getting the adjoining landholders involved in the project was really important. With their input we developed a recreational plan for the wetlands and now what was once an eyesore is a real drawcard for the region.'

The impact of fire that swept through the wetland and surrounding properties during February was 'heartbreaking' for someone who had been so heavily involved in its development.

'But it's coming back, it's amazing how it can bounce back,' Allen says.

This glass half full view of the world is perhaps what makes Allen so effective in motivating others to get on board, bring big ideas to fruition and hang in for the long haul to tackle the tough ones.

With 'seven and three-quarters' grandchildren (the eighth is due late August), he definitely has an eye on the future.

'I'll stay involved while I think I've got something to offer. I want to leave the farm better than I found it and the catchment too. I'm inspired by the next generation coming through and optimistic it's in good hands.'

And his message to these young leaders?

'Just have a go.'

### Staff list 2013-14

Aaron Findlay	Chris Norman	Geoff Earl	Karen Brisbane	Mary Dimit	Shannon Crawford
Annie Squires	Christine Glassford	Guy Tierney	Kate Brunt	Max Colliver	Simon Casanelia
Belinda Senini	Collin Tate	Helen Murdoch	Kate Hill	Meegan Judd	Stan Gibney
Brendan Stary	Corey Wilson	Janice Mentiplay-	Kate Pendergast	Megan McFarlane	Stephen Collins
Bianca Sulejman	Darelle Siekman	Smith	Katie Warner	Melanie Haddow	Steve Wilson
Carl Walters	David Lawler	Jason Head	Keith Ward	Neville Atkinson	Sue Kosch
Carla Miles	Dean Judd	Jasmine Dick	Kerry McFarlane	Peter Geddes	Tim Barlow
Casey Damen	Fiona Lloyd	Jenny Wilson	Kirsten Roszak	Rachael Spokes	Tom O'Dwyer
Charlie Sexton	Fleur Baldi	Jim Begley	Lisa Duncan	Rhiannon Apted	Tony Kubeil
Chris Burnett	Gaye Sutherland	Jim Castles	Mark Cotter	Richard Warburton	Vicki Mackenzie
Chris Nicholson	Geoff Brennan	Jo Wood	Mark Turner	Samantha Moreno	Wayne Tennant



## PARTNERS IN CATCHMENT MANAGEMENT

The health of the Catchment relies on many partner organisations and individuals. In fact, there are so many partner organisations of the Goulburn Broken Catchment Management Authority that we have found it challenging to capture them all. Any partner logo not appearing above does not undervalue their contribution to the Catchment.

### CONTACTS AND OFFICE LOCATIONS OF GOULBURN BROKEN CATCHMENT MANAGEMENT AUTHORITY

#### MAIN OFFICE, SHEPPARTON

168 Welsford Street, Shepparton  
 PO Box 1752, Shepparton Vic 3632  
 phone: (03) 5822 7700  
 fax: (03) 5831 6254  
 email: [reception@gbcma.vic.gov.au](mailto:reception@gbcma.vic.gov.au)

#### BENALLA

89 Sydney Road, Benalla  
 PO Box 124, Benalla Vic 3672  
 phone: (03) 5764 7000  
 fax: (03) 5761 1547

#### YEA

Shop 5/10 High Street,  
 Yea Vic 3717  
 phone: (03) 5797 4000  
 fax: (03) 5797 3199



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