



**GOULBURN  
BROKEN**

CATCHMENT  
MANAGEMENT  
AUTHORITY















GOULBURN BROKEN  
CATCHMENT MANAGEMENT AUTHORITY

# Annual Report 2021-22



## RATINGS LEGEND

2021-22 performance	Well below target (less than 50%)	Below target (50 to 80%)	On target (80 to 110%)	Exceeded target (more than 110%)	
Catchment condition	 Very poor	 Poor	 Satisfactory	 Good to excellent	
Contribution to system function	 Very poor	 Poor	 Satisfactory	 Good to excellent	
Risk to system thresholds / tipping point - Trend 2019-22	 Increasing significantly	 Increasing	 Stable	 Declining	
Long-term strategy maturity	Early	Middle	Late	Watch and adapt	Escalated response

The Goulburn Broken CMA continues to develop its approach to catchment condition and performance reporting using a resilience model aligned to the Goulburn Broken Regional Catchment Strategy 2013-2019 and Goulburn Broken Regional Catchment Strategy 2021-2027.

Appendix 1 discusses why and how ratings are applied. Although annual performance indicators have high certainty relative to long-term indicators, the uncertainty in setting and monitoring annual targets is still significant because of irregular timing of projects and project-delivery adaptation throughout the financial year. This uncertainty is reflected in an assessment of delivering 'on target' being defined as a large range.

## 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 2021-22 Corporate Plan targets.

The Goulburn Broken Catchment's resilience is explicitly assessed to inform an adaptive approach, consistent with the Goulburn Broken Regional Catchment Strategy 2013-2019 and Goulburn Broken Regional Catchment Strategy 2021-2027.

The Goulburn Broken CMA aims to provide information which is relevant, easily accessed and understood. More detailed and scientific data can be accessed via the website [www.gbcma.vic.gov.au](http://www.gbcma.vic.gov.au).

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 30, which aims to achieve consistency and minimise costs and environmental impact across government agencies.

© State of Victoria. Goulburn Broken Catchment Management Authority 2022. This publication is copyright. No part may be reproduced by any process except in accordance with provisions of the *Copyright Act 1968*.

ISSN 978-1-876600-02-0



### Front cover

#### Main photo:

Goulburn River at Shepparton.

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

1. Water bug sampling carried out on the mid Goulburn River.
2. A productive agricultural landscape in the Goulburn Broken Catchment.
3. Silver Banksia planting was undertaken by Taungurung Land and Waters Council, Sandy Creek, Lake Nillahcootie.
4. Collin Tate and Tom O'Dwyer have worked for the GB CMA since its inception 25 years ago.

# Contents

## Overview

- 2 Chair's report
- 3 Chief Executive Officer's report
- 4 Goulburn Broken Profile
- 10 Key events
- 12 Catchment condition assessment
- 14 Long-term scorecard
- 20 Outputs achieved 2013-14 to 2021-22
- 22 Annual scorecards

## Managing for community and environmental resilience

- 24 The Regional Catchment Strategy, resilience and climate change
- 33 Community
- 38 Waterways
- 52 Floodplain management
- 58 Biodiversity
- 67 Land
- 75 Sustainable irrigation

## Managing the organisation's business

- 88 Human resources
- 94 Environmental footprint
- 96 Governance
- 98 Goulburn Broken CMA Board
- 101 Performance indicators
- 104 Compliance

## Financial report

- 110 Financial results summary
- 115 Financial statements
- 115 Accountable Officers' and Chief Finance Officer's declaration
- 116 Independent Auditor's report
- 118 Comprehensive operating statement
- 119 Balance sheet
- 120 Cash flow statement
- 121 Statement of changes in equity
- 121 Notes to the financial statements

## Appendix

- 151 Appendix 1 Understanding progress and ratings
- 153 Appendix 2 Map of works
- 154 Appendix 3 Outputs - detailed list of achievements
- 156 Appendix 4 Map of properties covered by a whole farm plan
- 157 Appendix 5 Major Strategic References
- 160 Appendix 6 Roles of Catchment Partners
- 161 Appendix 7 Community grants 2021-22
- 164 Appendix 8 RCS Sub strategies progress
- 166 Appendix 9 Disclosure index

## Other

- 168 Glossary of terms
- 169 Abbreviations
- 170 Index
- 170 List of Staff 2021-22

## Inside back cover

- Recognising a major natural resource management contribution  
– Bill O'Kane

## Back cover

- Contacts and office locations

## Chair's report



I am pleased to present Goulburn Broken Catchment Management Authority's 2021-22 Annual Report as we mark 25 years of Catchment Management Authorities (CMAs) across Victoria.

On 1 July 1997, Catchment Management Authorities across the state came into existence. For Goulburn Broken CMA it's been a

25-year journey of evolution and achievement.

Over this time, the Goulburn Broken catchment and its community have faced many challenges including bushfire, drought and flood.

Resilience of the landscape and its people to recover has been a defining feature of the 25 years. It was important that resilience principles were again a key feature of the Goulburn Broken Regional Catchment Strategy 2021-2027, approved in April 2022.

Following two years of extensive consultation with the community and partners, the strategy guides long-term management actions to benefit the environment and biodiversity within the Goulburn Broken catchment area now, and into the future.

The Goulburn Broken Regional Catchment Strategy Pledge recognises that everyone who lives, works or visits the catchment and is interested in its natural resources has a part to play if we are to achieve the strategy's vision of 'resilient landscapes, thriving communities'. As the renewed strategy is implemented across the region, individuals and organisations are being called on to pledge their support.

Strong partnerships underpin the strategy. We are stronger working together and to that end there has been collaboration to deliver on Regional Catchment Strategies and key projects across the Catchment.

We continue to strengthen our relationships with the Catchment's two Registered Aboriginal Parties - Taungurung Land and Waters Council and Yorta Yorta Nation Aboriginal Corporation, from planning catchment strategies through to onground actions.

The Minister's commitment to increasing the role of Traditional Owners in water management features in the letter of expectations for CMAs and is shared by Goulburn Broken CMA.

I acknowledge the efforts of the Victorian Minister for Water to implement trade and operating rules and explore options to reduce the environmental, cultural and recreational risks posed to the lower Goulburn River by unseasonal deliveries of trade water. I look forward to supporting further work to protect the ecology of the river.

The CMA has continued to address the ongoing challenge of the impacts of climate change ensuring climate change is embedded in project design and implementation, appointing a Project Officer - Climate Change and supporting partners and our own commitment towards net zero.

The continued impacts of Coronavirus (COVID-19) have tested us in the past 12 months, calling on us to adapt to continue to deliver for the catchment. Being agile and adaptive in our approach has been important as we have built new and useful ways of working through this period.

### Vale Bill O'Kane

On a sad note, Bill O'Kane, the inaugural Chief Executive Officer of Goulburn Broken CMA passed away on 7 March this year. Mr O'Kane played a pivotal role in the CMA's founding years and I pass on my sincere condolences to his family, friends and colleagues. A tribute to Mr O'Kane is on the inside back cover of this publication.

### Thank you

I wish to give my thanks to my fellow board members who bring invaluable skills and experience to their roles. The board has continued to apply principles of good governance in 2021-22, enabling Goulburn Broken CMA to remain useful and relevant.

We welcomed new board members Les McLean, Amanda McClaren and Jodie Smith. I extend my thanks to outgoing board members Sam Lolicato and Jan Boynton.

My thanks also go to Chief Executive Officer Chris Cumming for the constructive and collaborative leadership provided over the past year.

### Responsible Body Declaration

In accordance with the *Financial Management Act 1994*, I am pleased to present the Goulburn Broken Catchment Management Authority Annual Report for the year ending 30 June 2022.

Helen Reynolds

### Chair

Goulburn Broken Catchment Management Authority  
25 August 2022

## Chief Executive Officer's report



Goulburn Broken CMA has continued to deliver over this past 12 months as an easing of Coronavirus (COVID-19) restrictions allowed a return to face-to-face work, events and forums.

Connecting is critical to share, learn, troubleshoot and create ideas. Being able to do this more freely in the later stages of the year has been

very welcome.

The value and strength of our partnerships continues to be evident as we work to deliver positive outcomes in natural resource management.

The approval of the Goulburn Broken Regional Catchment Strategy 2021-27 in April followed two years of consultation. Some 70 workshops were held with more than 800 participants attending as well as 35 written responses made to the strategy draft. This high level of engagement demonstrates the broad interest and concern for the health of our catchment.

Major catchment drivers and trends identified include: climate change, ongoing negative impacts from historic actions, urban population and land use changing, people increasingly valuing the environment for recreation and tourism, biodiversity under pressure, water issues more prominent and complex, increasing role and recognition of Traditional Owners, increasing and competing priorities for public resources and that agriculture is changing.

We have continued to deliver across our major program areas to address floodplain functions, biodiversity, soils and land management, sustainable irrigation and waterway health to assist in the protection of our catchment's natural assets. Some highlights this year are described below.

The development of the Goulburn Broken Community Flood Intelligence Portal reflects the CMA's commitment to making information accessible to our community. Through the portal, Goulburn Broken CMA, in partnership with six local government organisations, provides the community with access to information to assist with flood preparedness, flood insurance, land-use planning and development. Since its inception some 3560 views and 808 property reports have been provided.

The Goulburn Broken Regional Waterway Strategy 2014-2022 is in its sixth year. This strategy has guided our important work in rivers and wetlands. The context for the strategy implementation has broadened beyond the primary emphasis on river ecology with social, cultural, economic and environmental benefits from waterways being considered simultaneously.

Goulburn Broken CMA supports the increasing role of Traditional Owners in the management of land and water. The ever increasing involvement of Traditional Owners in natural resource management, brings thousands of years of knowledge and experience to caring for country, for the benefit of all. We value our ongoing partnerships with Yorta Yorta Nations Aboriginal Corporation (YYNAC) and Taungurung Land and Waters Council (TLaWC).

I particularly enjoyed time spent at Barmah, organised by the Yorta Yorta Traditional Land Owner Management Board, sharing collective stories of our, Yorta Yorta Nations and agencies working in the Barmah National Park. The days on country provided the opportunity to reflect and learn from our individual and joint projects.

To address a decline in frog numbers across the region Goulburn Broken CMA commenced a year-long community awareness campaign in 2022 – The Year of the Frog. The project highlights threats to local frog populations and what can be done to ensure their survival. Our river and wetland health programs protect vital habitat for frogs and other native species.

The community led Shepparton Irrigation Region Land and Water Management Plan (SIRLWMP) continues to direct strategic investment across the irrigated landscape of the Goulburn Broken catchment that 'supports and grows the natural base that is vital for agriculture, biodiversity and people to jointly flourish'. Over 30 years, government investment of \$650 million has been more than matched by farmer and community contributions of \$2 billion to implement more than 300,000 hectares of onground actions including through 7057 incentives.

Our program delivery is supported by our talented corporate team who continue to improve internal processes to create efficiencies in our business operations. We are committed to diversity and inclusion in the workplace and under the *Gender Equality Act*, the CMA developed its inaugural Gender Equality Action Plan.

Thank you to all our partners, community groups, volunteers and land managers who continue to collectively help care for our patch. We are all more effective together.

Thank you to the CMA staff who are committed to our catchment's health. They remain resilient, flexible and innovative, always passionate to make a difference.

Lastly, I would like to acknowledge the Goulburn Broken CMA board for their guidance, support and shared aspirations for the health of the catchment.

Chris Cumming  
**Chief Executive Officer**

## Goulburn Broken profile

### Goulburn Broken Catchment Management Authority

#### Powers and duties

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 from 1 July 2021 to 27 June 2022 were the Hon Lisa Neville MP, Minister for Water and the Hon Lily D'Ambrosio MP, Minister for Energy, Environment and Climate Change. The Hon Richard Wynne acted as the Minister for Water from 1 July 2021 to 22 August 2021.

The responsible Ministers for the period from 27 June 2022 to 30 June 2022 were the Hon Harriet Shing MP, Minister for Water and the Hon Lily D'Ambrosio MP, Minister for Environment and Climate Action.

(See page 144 for names of all persons who were responsible during 2021-22).

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.

Goulburn Broken CMA focuses on private land mostly managed for agriculture, on the interface of private and public land and supports Crown land managers with their functions.

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 96) for details.

#### Funding and staff

Goulburn Broken CMA's income for 2021-22 was \$21.2 million, predominantly from the Victorian and Australian Governments, regional sources and other government entities.

As at 30 June 2022, 47.4 (full-time-equivalent) staff were directly employed. See the 'Human resources' section (page 88) for details.

**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.**

#### Our Vision

Resilient landscapes, thriving communities.

#### Our Purpose

Through its leadership and partnerships 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.

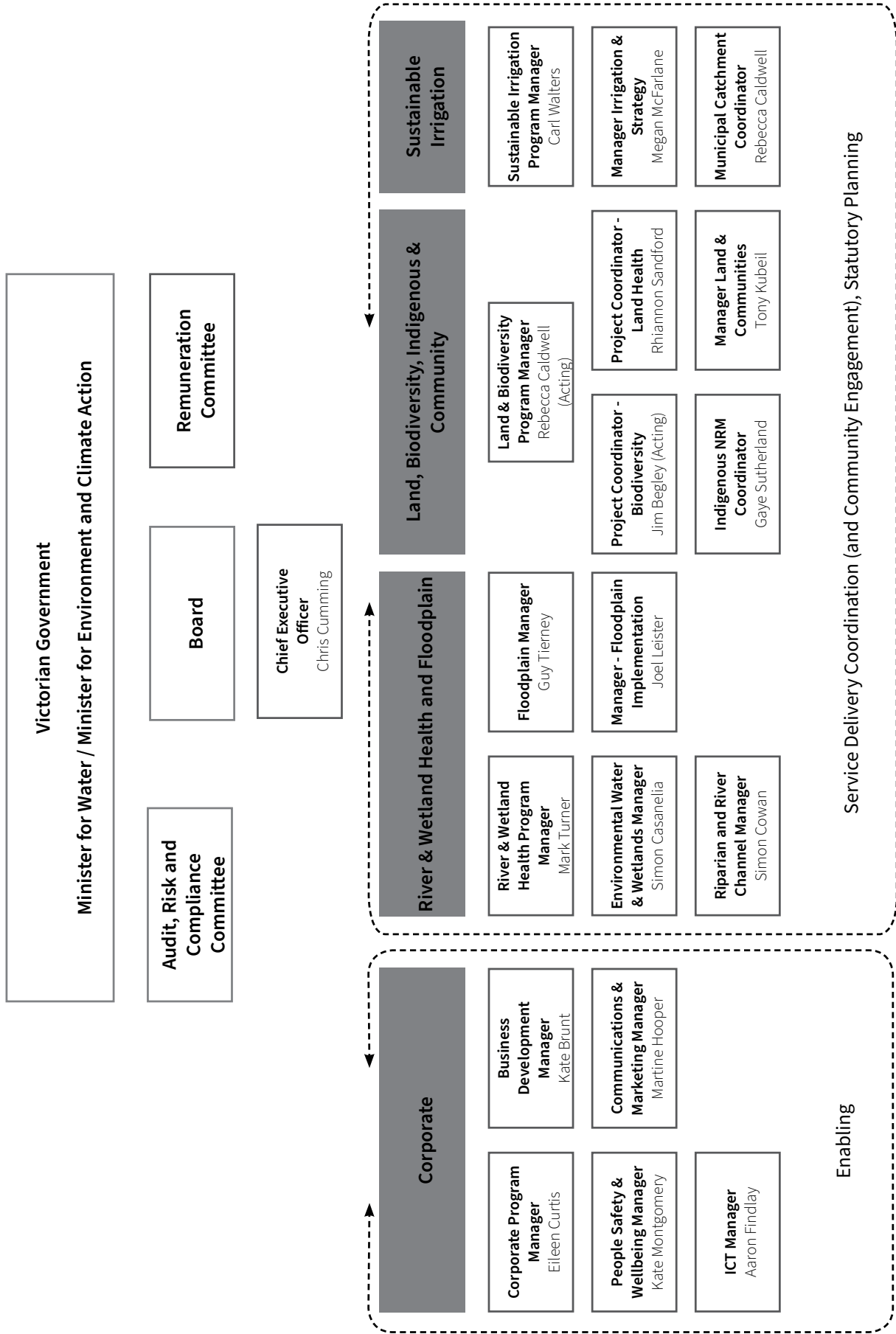
**Leadership:** we have the courage to lead change and accept the responsibility to inspire and deliver positive change.

**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



## Nature calls long-serving employees

**For 25 years the Goulburn Broken Catchment Management Authority has worked with communities and partner organisations to manage activities to protect and improve the Catchment's land, water and biodiversity. Two staff members have been there since day one.**

Twenty-five years ago, on 1 July 1997, Catchment Management Authorities across Victoria came into existence.

Starting their careers with the Goulburn Broken Catchment Management Authority (CMA) on that day were works supervisor Tom O'Dwyer and plant operator Collin Tate, who had previously worked for the Upper Goulburn Waterway Management Authority and Broken River Management Board, respectively.

Based at Yea, Tom and Collin joined the burgeoning organisation ready and eager to contribute to the health and management of the Goulburn Broken's natural environment.

Two-and-a half decades on Tom is a technical waterway and floodplain engineer at Goulburn Broken CMA and Collin is a river health implementation works supervisor. Both continue to work to protect the environment, having been part of many changes in catchment management over that period.

'There has been an evolution of waterway management in that time,' Tom said.

'There's a much more sophisticated approach now than in the early days - a far greater understanding of how the river, landscape and natural environment function as a whole.

'Waterways are the most sensitive environmental feature in the landscape, they are at the heart of it all. All rivers, streams and tributaries join together eventually.'

Changes to the environment take time to occur so the benefit of a long career with the CMA has meant Tom and Collin have witnessed the positive changes that are an outcome of the work they have done.

'I love revegetation work and seeing the result of that over the years - tree planting, habitat work, watching the fish populations come back,' Collin said.

'Being involved in the revegetation of King Parrot Creek between Yea and Seymour has been particularly satisfying.

'In 1998 the first fish survey was done there and those surveys are still being done today.

'Fish have turned back up and water bugs have moved in due to improvements in that waterway and that's fantastic.'

The community and the environment have faced numerous challenges over the past 25 years including fires, flood and extended drought.

Tom said both have shown incredible resilience.

'Recovery from those events is very hard and takes time for people and the landscape,' he said.

'After Black Saturday we were working with a stressed community and a stressed catchment.



*Collin Tate (left) and Tom O'Dwyer have been with the Goulburn Broken CMA since its inception on 1 July 1997.*

'Macquarie Perch were taken out of King Parrot Creek and kept at Snobs Creek hatchery while the waterway recovered. And with time there was recovery - the rivers bounced back which really does show the resilience of the landscape.'

Collin said there had always been a strong community connection to the catchment, from landholders to conservation groups.

'I've also seen generational changes in farming and agricultural practices with lots of improvements over time in land and stock management.

'Science has come into decision making in catchment management a lot more over the years and it's certainly for the better.

'Scientific surveys are undertaken before and after projects so the impacts of the work can be monitored and assessed.'

Reaching the 25-year milestone for Tom and Collin naturally provides the opportunity for reflection:

'Overall, you do hope that what you've done for all these years has made a difference,' Tom said.

'There's been a lot of people come and go through the organisation in that time and I've always been happy to share my knowledge and experience.

'Enthusiasm and new perspectives have blended with experience.'

Collin said he had always found everyone at the Goulburn Broken CMA has taken their responsibility to the catchment seriously and were committed to doing a good job.

'When I started here I never gave much thought to how long I was going to stay in the job,' Collin said.

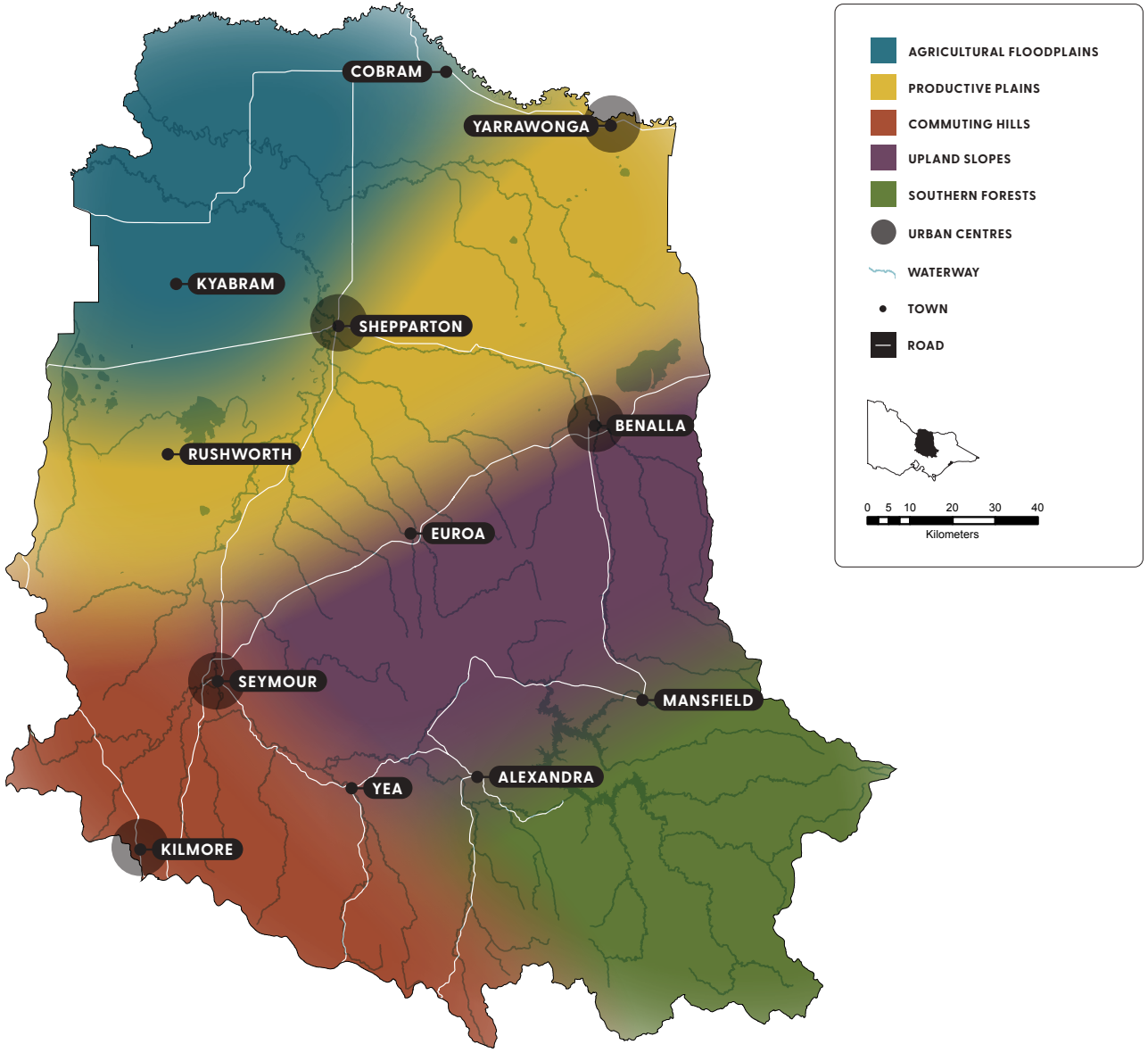
'But 12 months in it just seemed like what the CMA was doing was a good thing for the environment and I've continued to enjoy contributing to that.

'Looking back at some of the early tree plantations and seeing the size of the trees now, you soon realise how long you have been here.'



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

i. 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 onground works sites and whole farm plans achieved are included as Appendix 2 and 4..

## Regional overview

The Goulburn Broken catchment is situated in Victoria and is part of the Murray-Darling Basin. It encompasses the valleys of the Goulburn and Broken rivers and part of the Murray Valley, covering 10.5 per cent of Victoria. The catchment stretches from close to the outskirts of greater Melbourne in the south, to the Murray River in the north, Mt Buller to the east and the Mt Camel Range to the west.

The catchment includes two Registered Aboriginal Parties representing the interests of Traditional Owners for their respective Country: Yorta Yorta Nation Aboriginal Corporation (YYNAC) and Taungurung Land and Waters Council (TLaWC). This includes active involvement in Natural Resource Management through joint management agreements and legislative rights to public land.

Land use is diverse across the catchment, with approximately 63 per cent managed for agricultural production and the remaining 37 per cent a mix of nature conservation, forestry, rural residential and urban (ABARES 2018). The catchment's natural resources, mild climate, proximity to Melbourne and major transport routes support major agricultural, forestry and tourism industries. They also make it an attractive place to live for the expanding rural lifestyle population.

## Upland Slopes

***Vision: The Upland Slopes is a climate resilient socio-ecological system, supported by a strong sense of place and pride in our engaged, knowledgeable and adaptive community.***

The Upland Slopes extend across the southern hills and valleys of the catchment. The Taungurung were the first people of the rivers, valleys and mountains in this region and the many cultural sites indicate the importance to Traditional Owners.

Forests originally covered the hills and the valleys were open grassy woodlands. More recently, the area has been dominated by agricultural land and lifestyle properties. Natural events, such as drought and bushfires have also shaped the landscape.

Although grouped as one local area, the Upland Slopes could be separated into two ecological areas of the upper woodlands and the lower grasslands.

Similarly, the community is not homogeneous. It would identify as three social groups: the Mansfield area, the Strathbogie Ranges and the area north of Lake Nillahcootie. The area includes the towns and districts of Yea, Strathbogie, Mansfield, Warrenbayne, Alexandra and Jamieson. The community accesses services in Euroa and Benalla, which are outside the local area.

Land use is a mixture of state forests, small reserves, lifestyle properties and agriculture in the cleared valleys and slopes. Agricultural practices are dominated by grazing with some intensive agriculture such as viticulture and irrigated agriculture along waterways. Land use is changing with the introduction of different crops, such as cherries, and the growth in lifestyle properties, particularly in the Strathbogie Ranges and around the larger towns.

## Drivers of change

Drivers of change are forces that influence how the catchment operates and shape future pathways. The major drivers of change impacting Natural Resource Management (NRM) across the region are listed below. Climate change is the most significant driver of change because it impacts all the other drivers and trends.

- Climate change
- Technological innovation
- Transition to services economy
- Ageing population
- Increasing and competing priorities for public resources
- Increasing role and recognition of Traditional Owners and First Nations People
- Water as a tradeable commodity

## Catchment trends

As a result of the drivers, a number of trends or changes are emerging at the catchment-scale for NRM. Four broad catchment trends were identified by the community and are listed below.

- Agriculture is changing
- Biodiversity is under pressure
- Water issues are more prominent and complex
- Urban population and land use is changing

## Urban Centres

***Vision: Urban Centres offer employment, facilities and services for residents while valuing the natural environment.***

Urban Centres are the smallest sub-catchment system by area, but contain the largest populations. They are defined by a concentration of people, services and industries. The major urban centres are Shepparton, Seymour, Benalla, Kilmore and Yarrawonga.

The catchment's abundant food and water resources were first enjoyed by the Yorta Yorta and Taungurung Clans and the many cultural sites in urban areas indicate the area's importance to Traditional Owners.

The population living in urban centres has increased by 50 per cent since 1981, with 74 per cent of the total catchment population now living in a town, and a further 17 per cent living in the urban fringe and dependent on towns for employment.

The growth has not been consistent across all towns with variation influenced by factors such as town size, planning constraints, proximity to water or hills, proximity to facilities and employment, dependence on industries with declining or growing employment and bushfires.

Towns are valued for the range of services and opportunities they offer such as employment, education, support, infrastructure, retail, healthcare and sporting.

Urban communities are very diverse and connected by employment, sporting and social groups, but may not be strongly connected to the natural environment. This connection is changing with developments capitalising on the natural environment and a growing number of people enjoying nature-based recreation.

## Agricultural Floodplains

**Vision: The Agricultural Floodplains community leads Australia in producing food in harmony with the environment.**

The Agricultural Floodplains encompass the Shepparton Irrigation Region and the north-eastern parts of the catchment to the Murray River. It includes the towns of Shepparton, Cobram, Nathalia, Yarrowonga, Tatura, Kyabram, Tongala and Numurkah.

The region has a rich Aboriginal heritage and a First Nations population of more than 6000, the largest in regional Victoria.

Yorta Yorta Nation Aboriginal Corporation, which includes 8 clans, has statutory responsibilities for managing traditional cultural heritage and Crown land in Yorta Yorta Country. The balance of the area to the west is under the umbrella of the Taungurung Land and Waters Council.

The arrival of Europeans in the mid-1800s, soldier settlement schemes and more recent international migrants have added to a culturally diverse community.

The changing land use has included clearing for dryland and irrigation farming, construction of irrigation and drainage networks and urban settlement. These have seriously impacted the area's biodiversity, with most of the remaining habitat and vegetation along waterways and roadsides.

## Productive Plains

**Vision: Through strong, supportive community networks, the Productive Plains balances land productivity, quality water access and native vegetation quantity and condition in a changing climate.**

The Productive Plains run across the lower slopes and plains of the central catchment and include the towns of Nagambie, Euroa, Violet Town, Dookie and Tungamah. The area's abundant food and water resources were first used by the Yorta Yorta and Taungurung Clans and the many cultural sites indicate its importance to Traditional Owners.

Since European settlement, land use has included clearing for farming, gold rushes, the post-1930s farm mechanisation boom and the 1950s wool boom. This changing land use has had a major impact on the area's biodiversity. Most of the remaining habitat is provided by vegetation along waterways, roadsides, ranges and spring soak wetlands.

While rivers and creeks remain unregulated (except the Goulburn and Broken rivers), they are only in moderate condition. Community networks, such as the Gecko CLaN, Longwood Plains Conservation Management Network and many others, have established and provided support to landholders over the past 20-30 years to adopt sustainable farming practices and protect threatened species.

Growing consumer demand for greener agricultural products and the increasing sense of urgency among the community for climate change action, has the potential to create new opportunities for NRM across the Productive Plains.

## Commuting Hills

**Vision: The Commuting Hills has a safe, sustainable future and a great quality of life, while protecting and enhancing the wonderful natural environment.**

The Commuting Hills feature the mountainous urban fringe of the southern and south-western area of the catchment.

Traditional Owners originally shaped the land and the many cultural sites indicate the importance of the area. European settlement later led to the clearing of land for agriculture, gold rushes, urban development and rail and road infrastructure.

Large tracts of public land and small privately owned forested land remain over much of the area. Public land use includes extensive native forests, recreation and production forestry. Private land use is typically for lifestyle properties, intensive agriculture (such as berry farming and aquaculture) and grazing on cleared valleys and slopes.

## Southern Forests

**Vision: With the community, the Southern Forests balances ecological, economic, cultural and recreation needs to preserve natural resource health.**

The Southern Forests local area in the catchment's south and south-east includes seasonally snow-covered alps, moist montane and sclerophyll forests.

The Taungurung were the first people of this area and have ongoing land management responsibilities through the Recognition and Settlement Agreement between the Taungurung Land and Waters Council Aboriginal Corporation, the Taungurung Traditional Owner group, and the Victorian government.

Public land is managed as state forest, alpine resorts and national or state parks by Taungurung Land and Waters Council, Parks Victoria, Department of Environment, Land, Water and Planning, the Alpine Resorts Co-ordinating Council and Alpine Resort Management Boards.

This public land has the largest intact native vegetation areas in the catchment.

Over the past 100 years, the area has been shaped by events such as bushfires, gold rushes and post-war timber industry development. In recent years, the concentration of timber mills has fallen, while tourism demands have increased.

The natural resources are used for forest reserve, recreation, tourism, hydropower, water capture and storage and production forestry, including native forests and plantations. These require supporting infrastructure including roads and telecommunication.

The forest landscapes are highly valued for their ecological extent and diversity, cultural significance and economic contribution from recreation, tourism, plantation and native forest timber harvesting. Soils are fragile and often on steep slopes. The ecosystem services include high-quality and reliable water that provide environmental, economic and social value.

## Key events 2021

### July

Opening of the Bagungga Indigenous Garden at Mansfield Secondary College. This is a partnership project between Goulburn Broken CMA, Up2Us Landcare Network, the Mansfield Secondary College and Taungurung Land and Waters Council. The garden is an indigenous garden that highlights Traditional Owner culture and the threatened Mountain Pygmy-possum as part of the RLP Mountain Pygmy-possum Project.

Three positions with Goulburn Broken CMA were offered through the Victorian Government's Youth Employment Program.

Volunteers and members of the Upper Goulburn Landcare Network planted 300 of a total 900 plants on a property at Yea where a landholder fenced a dam to exclude stock and create a safe haven for wildlife. The project is funded through the Victorian Government's Our Catchments Our Communities 'Taking Care of Country' project.

The Goulburn Murray Resilience Taskforce had its first meeting to start the five intervention areas from the Goulburn Murray Resilience Strategy.

The Goulburn Broken Regional Catchment Strategy 2021-27 public consultation period was completed with numerous engagement sessions held. Extensive feedback was received which will strengthen the strategy.

### August

The first comprehensive fish survey of the lower Broken Creek in five years produced encouraging findings including that the numbers of native fish have remained stable since 2016.

Consultation opened on the Goulburn Murray Irrigation District Drainage Management Strategy offering a chance to have a say on how the shared environmental, economic, social and cultural benefits of drainage can support a vibrant and productive district.

Water for the environment was pumped into Horseshoe Lagoon by Taungurung Land and Waters Council who has strong cultural connections to the site. Turtles were recorded at the site following the water delivery.

Upper Goulburn Landcare Network hosted an on-farm day at Alexandra, 'Farmer wants a Field', bringing together 15 landholders and aspiring farmers. The aim of the project was to connect landholders without the skills or time to manage their land with farmers who want to manage land, without the means to own it. Topics included creating and implementing property and grazing plans, improving soil, utilising impact from grazing animals and rest periods and removing roadblocks. This project was supported by Goulburn Broken CMA's From The Ground Up Project which integrates agricultural and environmental practices to improve farm production and biodiversity.

### September

Goulburn Broken CMA provided 110 native quandong (*Santalum*) seedlings (bush food plant) to Yorta Yorta Nation Aboriginal Corporation who planted them at Gemmill's Swamp in Mooroopna.

Discussions held with the Victorian Environmental Water Holder CEOs. Topics included the delivery of environmental water, Traditional Owner engagement and the Goulburn to Murray Trade Rule.

### October

A thriving population of an endangered native plant species, the Small Scurf-pea (*Cullen parvum*) was uncovered at Rowan Swamp, north of Benalla where works to restore the swamp as part of the Goulburn Broken CMA Linking Landscapes and Communities project were being undertaken. The Small-Scurf-pea was the native clover which once made Australia's pastures highly productive. It is now endangered in Victoria and across Australia, making the population at Rowan Swamp an exciting discovery.

### November

The Goulburn Broken CMA calendar was produced and distributed across the catchment. 5000 copies were printed, highlighting local community photographs of landscapes, wildlife and plants. More than 350 images were submitted from the community.

The Passion into Action: How women create change workshop was held online with 38 participants across the Goulburn Broken region. This was designed to connect women inspiring them to continue creating opportunities and change within their communities in the natural resource management space.

The EPBC-listed Sloane's Froglet's call was confirmed at Moodie Swamp. The confirmation came after a delivery of water for the environment (1000 megalitres) to the site. Deliveries of similar volumes went to Kanyapella Basin and Loch Garry with smaller deliveries to Kinnairds Wetland and Black Swamp.

Four natural flood events in Barmah National Park during spring stimulated breeding by Ibis, Spoonbills, Night-herons and Egrets at Boals Deadwoods and Top Island. Cormorants and Darters also successfully fledged at Harbour's Lake. The breeding of colonial-nesting waterbirds is a key objective for The Living Murray and Barmah Ramsar programs.

The Goulburn Broken Regional Water Quality Forum was held focusing on blue-green algae management and tracking of blackwater events.

### December

The Australian Government launched a second round of applications for the Carbon + Biodiversity Pilot in six new natural resource management regions across Australia, including Goulburn Broken.

The Linking Landscapes (Grey Box) project completed 257.5 hectares of direct seeding revegetation across the catchment.

A large heronry developed at Barmah National Park following excellent flooding conditions of the wetlands. Approximately 1600 nests of Rufous Night-heron, 70 nests of Intermediate Egret and 30 nests of Eastern Great Egret were found by Goulburn Broken CMA wetland staff during field assessments. This was a significant finding as Barmah is understood to now represent the last known nesting location for the white egret species in Victoria.

Surveys of Superb Parrot, conducted in conjunction with the local Superb Parrot Group, identified 421 individual birds calling/flying. This is one of the three highest counts recorded since counts commenced prior to the Millennial Drought.

## Key events 2022

### January

As part of the Linking Landscapes (Grey Box) project, the 'Year of the Frog' promotion commenced with a new local frog species being featured each month across the catchment. The community awareness campaign highlights threats to local frog populations and what can be done to address a decline in numbers.

Bogong Moth monitoring continued for the Mountain Pygmy-possum project on Mt Buller through summer, to collect valuable data on availability of this critical food source and allow for adaptive management to be considered if declining numbers were detected.

The nationally threatened Southern Pygmy Perch will get a new home with the announcement of Australian Government Murray-Darling Healthy Rivers Program funding for Goulburn Broken CMA's project.

### February

The Board approved its first Goulburn Broken CMA Gender Equality Action Plan.

Goulburn Broken CMA presented on the Landscape Plan Guide for Developments in City of Greater Shepparton, the Shire of Campaspe and the Shire of Moira (2017) at the Naturally Cooler Towns forum. This project is part of the Goulburn Murray Climate Alliance and is looking at how trees can be integrated into urban areas to assist with climate adaptation.

The Arthur Rylah Institute undertook annual fish surveys in the Hughes, Seven and Holland creeks. Instream habitat works commenced on Hughes Creek, with placement of large wood to extend connectivity with previous site works, and a sedge establishment trial to monitor various techniques to manipulate colonization and stabilisation of sand.

The Waranga Drainage Project commenced with options being prepared in consultation with relevant landowners.

### March

Goulburn Broken CMA, in partnership with the catchment's Landcare networks and key agencies held a 'Reconnecting the Catchment' event, after COVID-19 restrictions limited face-to-face interactions. The event was held at Euroa where attendees networked and highlighted how they can work together over the next 12-24 months.

Board and staff members attended the launch of the 2022 Fairley Leadership Program. Goulburn Broken CMA sponsors a Fairley Leadership Program participant each year through the Ken Sampson Memorial Scholarship. This year's recipient is Nadine Holgate.

Surveys of wetlands in Barmah-Millewa revealed these wetlands support an astonishing 30 per cent of the national population of Australasian Bittern.

### April

The Goulburn Broken Regional Catchment Strategy 2021-27 was approved by the Minister for Water. Following two years of extensive consultation with the community and partners, the strategy guides long-term management actions to help benefit the environment and biodiversity within the Goulburn Broken catchment area now, and into the future.

The 'On Your Guard' paddock tree guard program continues to be popular. To date, 605 guards have been distributed as part of the RLP Linking Landscapes project and around 270 landholders engaged about the importance of paddock trees.

The 250th meeting of the Partnership Team was held – a collaboration with Agriculture Victoria, DELWP Hume, Environment Protection Authority Victoria, Goulburn-Murray Water, Parks Victoria, Taungurung Land & Waters Council, Trust for Nature, Yorta Yorta Nation Aboriginal Corporation and local councils.

SIRPPIC held their annual review of the five SIRLWMP critical attributes to update current understanding and drivers, risks as well as consider actions for 2022-23.

Department of Agriculture, Water and Environment staff visited the region and included visits to farm demonstration sites to highlight the work done by farmers in our region.

The Our Water Our Future project (jointly being run with North East CMA) held its first workshop in Beechworth with the aim to bring the water-based agencies together, gather a collective position on the future and consider how we, with the community, respond to the reduced inflows into the Murray System under all climate scenarios.

### May

The Floodplain Ecology course was held with 23 participants attending from community, universities and agencies. This practical course is run by the Goulburn Murray Landcare Network at Barmah National Park and presents on topics such as floodplain ecology, geology, geomorphology and floodplain flora and fauna.

An event to coincide with World Fish Migration Day was held with local primary school students at Shepparton Weir. The day focused on the Murray Cod and the Golden Perch and the role the weir, a rock fishway, plays in opening up more than 200 kilometres of the Goulburn and Broken rivers to these fish species. The event was a collaboration between Goulburn Broken CMA and RiverConnect.

Goulburn Broken CMA was present at Recovery Australia and Rotary Australia community outreach events held throughout the region. These events brought together all levels of government, charities, not-for-profit and agricultural organisations to support farmers and rural and regional communities.

In a state CMA first, Goulburn Broken CMA staff completed setting up a drone for use in projects for monitoring and communications with a first successful inaugural flight.

### June

The Ribbons of Blue Sashes of Green project funded by the Victorian government finished after three and a half years. The project achieved 513.9 hectares of revegetation along creeks, in paddocks and around dams on private land. As part of the project, goats, foxes and rabbits were removed from the Heathcote-Graytown National Park and surrounding public land areas.

The Goulburn Murray Resilience Taskforce held a workshop on the Circular Economy which was well attended by a diverse range of leaders in the field.

## Regional catchment condition summary (Statewide standard format)

Theme	Trend		Condition
	2021-22	Over last 5 years	
<b>Water</b>	Concerned	Concerned	Moderate

Catchment condition for water is rated as moderate overall, with condition of waterways moderate, floodplains moderate and irrigation system poor. Trends in catchment condition for water have been largely stable over the past five years.

### Waterways

Water quality and fish populations have improved significantly from changes such as removal of stock-grazing and key fish-barriers, re-snagging of streams, tree planting, wastewater management and the delivery of water for the environment. Although blue green algae and hypoxic blackwater events and pH levels are all increasing.

Despite increasing waterbird habitat in the Goulburn Broken catchment through environmental flows, populations of many species across the Murray-Darling Basin seem to be declining.

Available water for the environment is being used to protect and improve the health and functioning of some waterways. However, there are opportunities to improve the effectiveness, including by addressing delivery constraints. Consumptive water en route also poses environmental challenges in some instances.

Waterways are also subject to increasing pressure from recreation and other land uses. However local and regional agency and broader community partnerships associated with waterway management are strengthening.

### Floodplain management

There have been significant floodplain management improvements across the catchment, with further improvements currently underway.

As more infrastructure occurs within floodplains flood impacts potentially increase. However through floodplain management tools, the annual average damages do not unduly increase and community preparedness and education of flood risk improves.

The influence of climate change on rainfall patterns, and therefore the flood behaviour, is being observed across the catchment.

### Shepparton Irrigation Region

Shepparton Irrigation Region social-ecological systems depend on highly productive and efficient irrigated agriculture. They are beyond tipping points and are adapting and transforming, creating significant uncertainty and stress.

Increased competition is impacting water availability for agriculture due to increasing demands and the impacts of climate change is threatening farm and regional viability, making it extremely challenging for the region to adapt to a future with less water.

Water quality has improved significantly and works and long-term dry conditions have stabilised watertables for now.

The mix of land use is changing across the region, for example the increase in larger and corporate farms, and impacts on natural resources are unclear. However the fast rate of change is creating some uncertainty.

<b>Land</b>	Neutral	Neutral	Moderate
-------------	---------	---------	----------

Catchment condition for land is rated as moderate and has remained stable since 2009. While there was an upward trend in land health during the 1990s and early 2000s as soil erosion, salinity and fertility issues were addressed and agricultural management practices evolved, this trend has plateaued. This is in part due to historical land management practices (such as vegetation clearing and fuel reduction burning), current land management practices not alleviating soil structural issues (such as compaction and low soil carbon), emerging issues (such as subsoil acidity) and the increasing impact of climate change.

Good seasonal rainfall during 2021 has continued to drive confidence in many agricultural sectors. This outcome is likely to include increased growth of crops and pasture, resulting in good ground cover and more organic matter turn over, together with strategic investments in soil health, such as lime, supporting soil health for agriculture. However high crop residues are leading to increased requirement for new options that are better than burning.

Purpose and use of public land remains stable at poor, with visitor numbers and use of public land for recreation increasing and subsequent management issues such as rubbish, access, illegal firewood collection increasing, at the same time as efforts to control e.g. feral grazing species increase.

Theme	Trend		Condition
	2021-22	Over last 5 years	
<b>Biodiversity</b>	Concerned	Concerned	Poor

Catchment condition for biodiversity is currently rated as poor, with no significant change since 2009. The long-term risk of decline is very high. This is partly due to historic and current land use decisions resulting in:

- a net reduction in native vegetation extent
- a reduction in diversity and quality of native vegetation
- an intensification of land use and loss of landscape context.

Good climatic conditions across the catchment has seen increased native flowering and seeding events attracting increased numbers of species (e.g. flying foxes) and driven the movement of species (e.g. Superb Parrot) beyond their normal range. Although it appears climate change impacts have seen local high to low country migratory species (e.g. Pied Currawong and King Parrot) spending more time in lowland habitats, possibly creating competition for resources threats.

The scale of change in areas managed for conservation is also not sufficient. Thresholds have been breached and many flora and fauna ecosystems are in decline.

Public land management is occurring across a greater area of reserves with an increased focus and funding for pest plant and animal control.

Urbanisation across the catchment is a continued risk to the catchment's biodiversity.

<b>Community</b>	Neutral	Neutral	Moderate
------------------	---------	---------	----------

The capacity and resilience of the community is central to the catchment's condition because community engagement in Natural Resource Management is a major driver of biodiversity, land and water health. Catchment condition for community capacity and resilience is rated as moderate, with stable long-term trend.

The community's resilience has strengthened following the experience of significant threats to the environment and economy in the late 1980s and 1990s. However, the increasing urgency to improve the catchment's natural resources, combined with increasing and competing priorities for public resources, means communities need to explore new investment opportunities. Additionally, the increasing diversity of landholders, use and connection to nature are driving a rethink about how we maintain local links and support while providing opportunities for transient volunteering.

Traditional Owners involvement in Natural Resource Management is increasing, supported by policy and legislative change.

Funding for agencies to support local community groups (including Landcare) and individuals is uncertain and volunteers are ageing and participation in government programs is dropping off due to increasing complexity.

There has been an increased ability to engage with parts of the community as a result of the increase in technological skill stimulated by COVID-19.

<b>Integrated Catchment Management</b>	Positive	Neutral	Good
--	----------	---------	------

The renewal of the Goulburn Broken Regional Catchment Strategy was completed in late 2021 and endorsed by the Minister in 2022. The renewal process involved input from stakeholders including Taungurung Land and Water Council, Yorta Yorta Nation Aboriginal Corporation, government agencies, councils, groups and individuals who make up the diverse range of people that live, work, invest in and visit the catchment.


The renewal process has been challenging but hugely rewarding. There has been a strong expression of the enormous value of the catchment's waterways, landscapes and biodiversity, and the services they provide – economic, social, aesthetic, recreational, lifestyle and environmental. Stakeholders are united to act with urgency on climate change, setting ambitious targets that drive us forward to protect our natural assets with transforming and innovative actions.

Integrated catchment management is expected to continue to strengthen with the implementation of the new regional catchment strategy and the renewal of the catchment partnership agreement in 2022-23.

## Long-term scorecard: Catchment condition and resilience

All investment areas are impacted by key catchment drivers of change such as:

- Land-use change
- Water policy reform
- Climate change
- Increased farm productivity.

Investment area <sup>i</sup>	Catchment condition summary			Snapshot
	1990	2022	Long-term risk <sup>ii</sup> (given current support)	
<b>Community</b>  	<span style="color: green;">●</span>	<span style="color: yellow;">●</span>	MEDIUM	<ul style="list-style-type: none"> <li>– Traditional Owners involvement in Natural Resource Management is increasing supported by policy and legislative change.</li> <li>– Communities, partner organisations, farmers and others have achieved significant onground changes and are influencing attitudes and behaviours within Natural Resource Management (NRM).</li> <li>– Diverse stakeholders are represented on high-level regional and local community NRM forums: farmers, Traditional Owners, local and regional government agencies, Landcare and recreation groups, and others work well in partnership and are strongly networked. Increased urbanisation continues to influence the catchment community.</li> <li>– Funding for agencies to support local community groups and individuals is uncertain and volunteers are ageing and participation in government programs is dropping off due to increasing complexity.</li> <li>– There has been an increased ability to engage with parts of the community as a result of the increase in technological skill stimulated by COVID-19. However, COVID-19 has limited engagement in some sectors of the community where face to face engagement is preferred</li> <li>– The Goulburn Broken community is changing and as a result there is a shift in who and how the community influence and lead.</li> </ul>
<b>Waterways</b>  	<span style="color: brown;">●</span>	<span style="color: green;">●</span>	MEDIUM	<ul style="list-style-type: none"> <li>– Water quality and fish populations have improved significantly from changes such as removal of stock-grazing and key fish-barriers, resnagging of streams, tree planting, waste water management and the delivery of water for the environment. Although blue-green algae and hypoxic blackwater events and pH levels are all increasing.</li> <li>– Dry periods and climate change continue to be a significant challenge.</li> <li>– Despite increasing waterbird habitat in the Goulburn Broken catchment through environmental flows, populations of many species across the Murray-Darling Basin seem to be declining.</li> <li>– Available water for the environment is being used to protect and improve the health and functioning of some waterways. However, there are opportunities to improve the effectiveness, including by addressing delivery constraints. Consumptive water en route also poses environmental challenges in some instances.</li> <li>– Waterways are also subject to increasing pressure from recreation and other land uses.</li> <li>– Local and regional agency and broader community partnerships associated with waterway management are strengthening.</li> <li>– Increasing unauthorised activity across the catchment is affecting waterways. There have been more blue-green algae outbreaks in recent years.</li> </ul>

**Catchment condition:** ● Very poor    ● Poor    ● Satisfactory    ● Good to excellent

i. Investment areas apply to the whole-of-catchment, apart from Sustainable irrigation, which applies only to the Agricultural Floodplains social-ecological system (and the associated Shepparton Irrigation Region Land and Water Management Plan).

ii. Risk of systems not being in desired state of resilience in the long term given current support. The desired state is often different from the current state and is usually not the pre-European state. Investment areas can be considered as systems and they are highly interconnected. Support includes government funding and community investment.



Ratings in the following table are explained in investment area reports as referenced in the right-hand column. Ratings shown are not a definitive assessment and are a tool for discussion about long-term progress. Comments about the certainty of ratings are shown in each investment area.

Appendix 1 describes the analytical framework, including terms used in this scorecard.

		Resilience assessment					Long-term strategic implementation	Details page
Critical attribute affecting long-term catchment health <sup>iii</sup>	Contribution to system function		Risk to system thresholds / tipping point					
	1990	2022	Trend 2019-22	With current support	With no support			
Community capacity to influence and lead				HIGH	VERY HIGH	Escalated response <sup>iv</sup>	34	
Community capacity to be involved and act onground				MEDIUM	HIGH	Watch & adapt	34	
Streamflows and wetland inundation - Dammed (regulated) streams				MEDIUM	VERY HIGH	Early	40, 44	
Streamflows and wetland inundation - Undammed (unregulated) streams				HIGH	VERY HIGH	Middle	41, 44	
Streamside (riparian) vegetation				LOW	HIGH	Late	41, 45	
Water quality				MEDIUM	HIGH	Watch & adapt	42, 45	
Fish passage and habitat				LOW	MEDIUM	Late	42, 46	

**Contribution to system function:** Very poor Poor Satisfactory Good to excellent  
**Risk to system thresholds / tipping point:** Increasing significantly Increasing Stable Declining

iii. Many critical attributes relate to the 20 to 30-year objectives listed in Goulburn Broken CMA sub-strategies.

iv. 'Escalated response' recognises that the situation has shifted so significantly that difficult and sensitive questions about transformation and transitioning must be considered.

Investment area <sup>i</sup>	Catchment condition summary		
	1990	2022	Long-term risk <sup>ii</sup> (given current support)

<b>Biodiversity</b>	●	●	<b>VERY HIGH</b>	<ul style="list-style-type: none"> <li>– Native vegetation improvement actions, such as revegetation and stock control, have improved 1.1 per cent (16,986 ha) of the Catchment’s private land in the past 10 years. After accounting for losses during this time, native vegetation extent has increased by the order of 0.3 per cent (4,500 ha), which is not a sufficient scale for all native species to survive.</li> <li>– Current threats, such as clearing (including illegal firewood collection), invasive pest plants and animals, and fire management, are exacerbated by climate change and have a compounding effect on past large-scale habitat loss and degradation. Paddock trees remain vulnerable.</li> <li>– Good climatic conditions across the Catchment has seen increased native flowering and seeding events, attracting increased numbers of species such as flying foxes and driven the movement of species such as superb parrot, beyond their normal range. Also, it appears climate change impacts have seen local high-to-low country migratory species such as pied currawong and king parrot spending more time in lowland habitats, possibly creating competition for resources. These good climatic conditions can also result in higher pest plant numbers having a negative impact on biodiversity.</li> <li>– The scale of change in areas managed for conservation is not sufficient. Thresholds have been breached and many flora and fauna ecosystems are in decline.</li> <li>– Urbanisation across the Catchment is a continued risk to the Catchment's biodiversity.</li> <li>– Increased awareness in environmental stewardship.</li> </ul>
---------------------	---	---	------------------	--



<b>Land</b>	●	●	<b>MEDIUM</b>	<ul style="list-style-type: none"> <li>– Good seasonal rainfall continued to drive confidence in many agricultural sectors. The outcome is likely to include increased growth of crops and pasture, resulting in good ground cover and more organic matter turn over, together with strategic investments in soil health, such as lime, supporting soil health for agriculture.</li> <li>– Good seasonal rainfall also drove an increased requirement for crop residue management, leading to industry investment in determining options that are better than burning (multiple outcomes).</li> <li>– The increased awareness of how soils can be improved is being applied on many farms. However, the changing demographic in the south of the catchment is affecting the use of private land, this is likely to increase in coming years.</li> <li>– Purpose and use of public land remains stable at poor, with visitor numbers and use of public land for recreation increasing and subsequent management issues such as rubbish, access, illegal firewood collection increasing, at the same time as efforts to control e.g. feral grazing species increase.</li> <li>– Catchment-wide invasive plant and animal management is now mainly focused on new and emerging species and complementing community activity. Under present arrangements, there are high and increasing long-term risks in hot-spot areas from existing and emerging threats like deer in the alps, foothills and plains; feral horses in Barmah National Park and key weed species in priority areas. Mice and rabbits also had a significant impact in 2021-22.</li> <li>– Changes in land use continue to impact biodiversity, this includes Peri-urban development and corporate farming.</li> </ul>
-------------	---	---	---------------	--



**Catchment condition:** ● Very poor    ● Poor    ● Satisfactory    ● Good to excellent

i. Investment areas apply to the whole-of-catchment, apart from Sustainable irrigation, which applies only to the Agricultural Floodplains social-ecological system (and the associated Shepparton Irrigation Region Land and Water Management Plan).



ii. Risk of systems not being in desired state of resilience in the long term given current support. The desired state is often different from the current state and is usually not the pre-European state. Investment areas can be considered as systems and they are highly interconnected. Support includes government funding and community investment.

		Resilience assessment					Long-term strategic implementation	Details page
	Critical attribute affecting long-term catchment health <sup>iii</sup>	Contribution to system function		Risk to system thresholds / tipping point				
		1990	2022	Trend 2019-22	With current support	With no support		
	Native vegetation extent	●	●	▲	VERY HIGH	VERY HIGH	Escalated response <sup>iv</sup>	59-65
	Native vegetation quality	●	●	▲	VERY HIGH	VERY HIGH	Escalated response <sup>iv</sup>	59-65
	Soils for agriculture	●	●	—	MEDIUM	HIGH	Middle	68, 70 72-73
	Purpose and use of private land	●	●	—	MEDIUM	HIGH	Watch & adapt	68, 70 72-73
	Purpose and use of public land	●	●	▲	MEDIUM	HIGH	Watch & adapt	69
	Invasive plants and animals	●	●	▲	HIGH	VERY HIGH	Middle	69, 70-71

**Contribution to system function:** ● Very poor ● Poor ● Satisfactory ● Good to excellent  
**Risk to system thresholds / tipping point:** ▲ Increasing significantly ▲ Increasing — Stable ▼ Declining

iii. Many critical attributes relate to the 20 to 30-year objectives listed in Goulburn Broken CMA sub-strategies.

iv. 'Escalated response' recognises that the situation has shifted so significantly that difficult and sensitive questions about transformation and transitioning must be considered.

Investment area <sup>i</sup>	Catchment condition summary			Snapshot
	1990	2022	Long-term risk <sup>ii</sup> (given current support)	
<b>Sustainable irrigation</b> 	●	●	HIGH	<ul style="list-style-type: none"> <li>Shepparton Irrigation Region (SIR) social-ecological systems depend on highly productive and efficient irrigated agriculture. They are beyond tipping points and are adapting and transforming, creating significant uncertainty and stress.</li> <li>Increased competition is impacting water availability for agriculture due to increasing demands and the impacts of climate change is threatening farm and regional viability, making it extremely challenging for the region to adapt to a future with less water.</li> <li>Water quality has improved significantly and works and long-term dry conditions have stabilised watertables for now.</li> <li>Intervention is improving some pockets of native vegetation; however most threatened ecosystems remain at high risk. Native vegetation extent is still poor (less than three per cent).</li> <li>The mix of land use is changing across the SIR, for example the increase in larger and corporate farms, and impacts on natural resources are unclear. However the fast rate of change is creating some uncertainty.</li> </ul>
<b>Floodplain management</b> 	●	●	MEDIUM	<ul style="list-style-type: none"> <li>There have been significant floodplain management improvements across the catchment, with further improvements currently underway.</li> <li>As more infrastructure occurs within floodplains, flood impacts potentially increase. However through floodplain management tools, the annual average damages do not unduly increase and community preparedness and education of flood risk improves.</li> <li>The influence of climate change on rainfall patterns, and therefore the flood behaviour, is being observed across the catchment. Current studies are including allowances for these changes in the project outputs.</li> </ul>

**Catchment condition:** ● Very poor    ● Poor    ● Satisfactory    ● Good to excellent

i. Investment areas apply to the whole-of-catchment, apart from Sustainable irrigation, which applies only to the Agricultural Floodplains social-ecological system (and the associated Shepparton Irrigation Region Land and Water Management Plan).

ii. Risk of systems not being in desired state of resilience in the long term given current support. The desired state is often different from the current state and is usually not the pre-European state. Investment areas can be considered as systems and they are highly interconnected. Support includes government funding and community investment.

Resilience assessment							Long-term strategic implementation	Details page
Critical attribute affecting long-term catchment health <sup>iii</sup>	Contribution to system function		Risk to system thresholds / tipping point					
	1990	2022	Trend 2019-22	With current support	With no support			
Water availability for the environment	●	●	—	MEDIUM	HIGH	Early	76	
Water availability for Agriculture	●	●	▼	HIGH	VERY HIGH	Escalated response <sup>iv</sup>	77	
Water quality	●	●	—	MEDIUM	HIGH	Watch & adapt	77	
Watertables	●	●	▲	MEDIUM	HIGH	Watch & adapt	78	
Native vegetation extent	●	●	▲	VERY HIGH	VERY HIGH	Middle	80	
Farm and regional viability	●	●	—	HIGH	VERY HIGH	Escalated response <sup>iv</sup>	79	
Flood impact	●	●	—	MEDIUM	VERY HIGH	Late	52-57	

**Contribution to system function:** ● Very poor ● Poor ● Satisfactory ● Good to excellent  
**Risk to system thresholds / tipping point:** ▲ Increasing significantly ▲ Increasing — Stable ▼ Declining

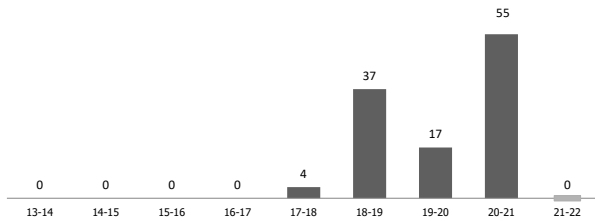
iii. Many critical attributes relate to the 20 to 30-year objectives listed in Goulburn Broken CMA sub-strategies.

iv. 'Escalated response' recognises that the situation has shifted so significantly that difficult and sensitive questions about transformation and transitioning must be considered.

## Outputs achieved 2013-14 to 2021-22

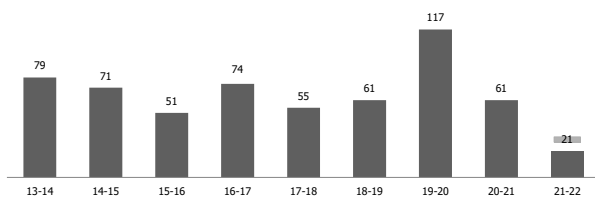
The following outputs were achieved through one or more investment areas (listed on the previous and following pages). They indicate progress towards long-term targets listed in the Regional Catchment Strategy and sub-strategies.

### Irrigation drains built, km



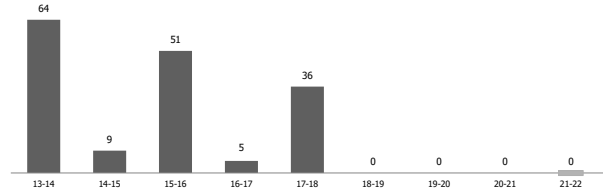
A 2015 review resulted in reduced drainage requirements and renewed priorities including a new hybrid approach (pages 78, 83 and 85).

### Whole farm plans prepared, no.



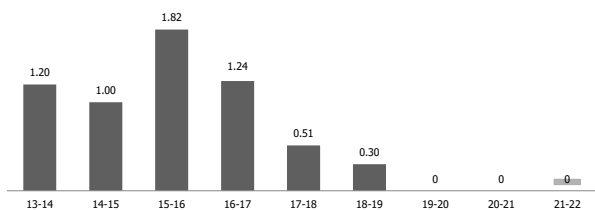
Water-use efficiency has driven whole farm plan numbers in the last 10 years via the Farm Water and Connections Programs. These programs are completed and funding is reducing, despite steady demand (page 81).

### Reuse systems installed, no.



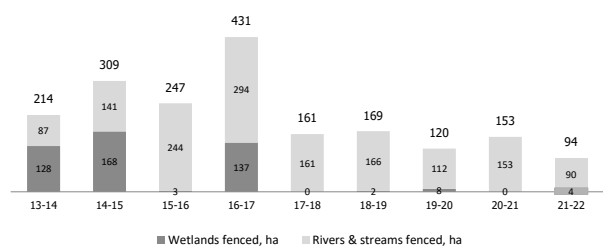
Significant achievements from 2012 to 2018 due to the Farm Water Program. Funding for these works ceased in the Goulburn Murray Irrigation District from 2018 (page 85).

### River or stream bed & bank protection actions, km



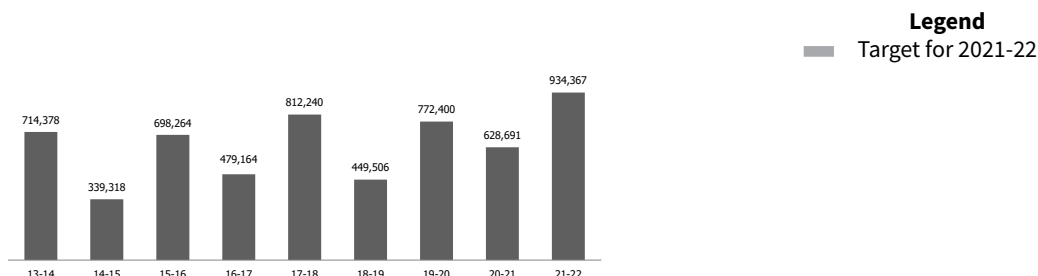
Hard engineering approaches are used less now, with a preference for vegetation. In the absence of significant flood recovery programs, recent trends are expected to continue (pages 41, 45 and 50).

### Riparian land fenced, ha



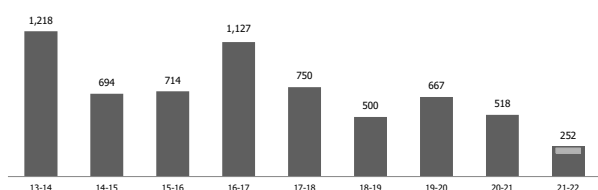
Grazing is now well managed beside long lengths of rivers and streams through fencing from regular and opportunistic fund sources, and through changes in tenure. Significant lengths remain to be improved, and maintenance of previous efforts is becoming a priority (41, 45 and 50).

### Environmental water use, ML



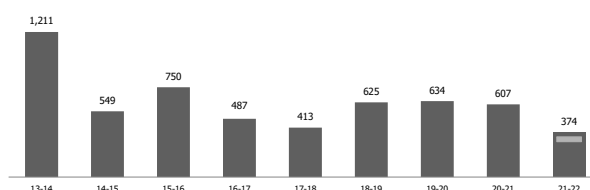
Annual environmental water use is influenced by seasonal conditions and environmental water availability (page 49).

### Remnant vegetation fenced, ha



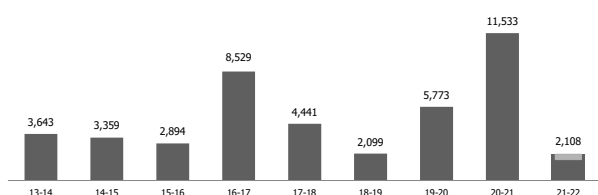
Australian and Victorian Governments are no longer including the output 'remnant vegetation fenced ha', and instead are using 'revegetation natives' as the output for fenced remnants. Remnants are considered as sites naturally regenerating (pages 66 and 74).

### Indigenous revegetation (planted), ha



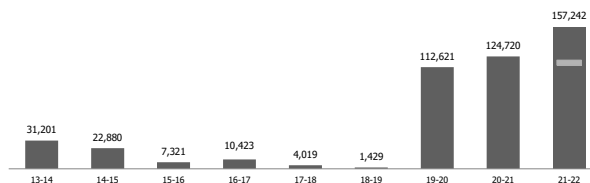
Revegetation continues to be important in creating resilient landscapes through connectivity projects (pages 66 and 74).

### Weeds treated, ha



Weed control is a focus for the Victorian and Australian Governments and Indigenous works crews are delivering much of the work (page 36 and 74).

### Pest animal control, ha



DELWP's Biodiversity Plan 2037 is driving an increase in the focus on pest animal control (page 70-71 and 74).

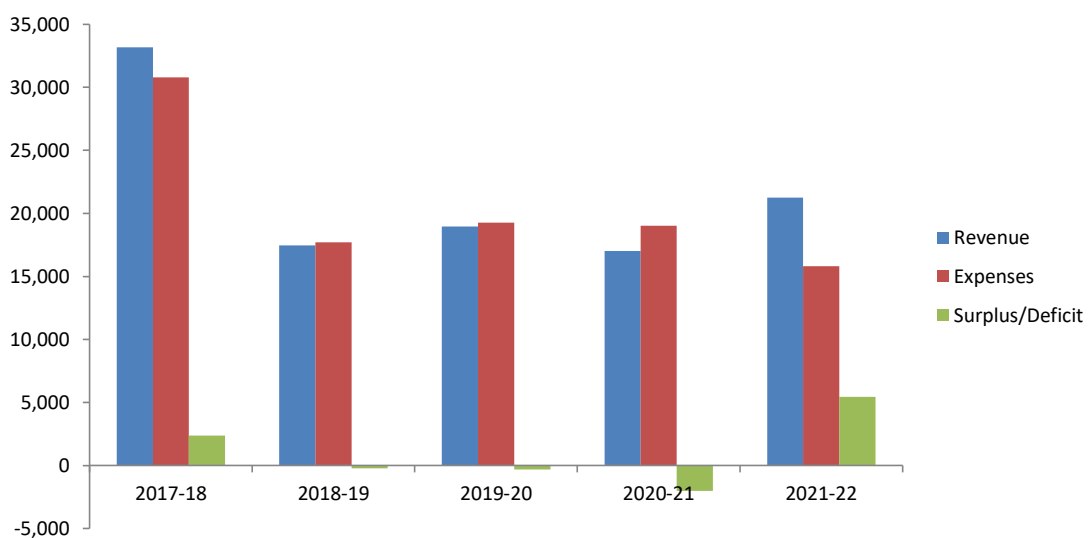
## Annual scorecards

### Indicative investment and gross output performances in investment areas

Investment area <sup>i</sup>	Investment <sup>ii</sup> (including partnership funds)				2021-22 performance <sup>iv</sup> (outputs)	Details page
	2019-20 \$00	2020-21 \$000	2021-22 \$000	Forecast <sup>iii</sup> 2022-23 \$000		
Community and the Environment						
Community <sup>v, vii</sup>	803	926	1,144	798	On target	33
Sustainable irrigation	7,038	4,074	5,971	3,412	On target	75
Waterways	4,283	4,868	6,571	4,659	Exceeded target	38
Floodplain management	836	1,025	868	836	On target	52
Biodiversity	2,689	2,876	2,838	2,756	Exceeded target	58
Land	428	622	501	420	Exceeded target	67
The Business (Corporate)						
Governance <sup>vii</sup>	1,566	1,488	2,200	1,647	On target	95
Human resources <sup>vi</sup>	5,995	6,108	6,391	7,258	On target	88

- i. Appendix 1 describes the analytical framework, including terms used in this table. Ratings legend is inside front cover.
- ii. Investment figures include funding to partners, except for the Invasive plants and animals investment area.
- iii. Based on the budget in the Corporate Plan 2022-23 as at June 2022.
- iv. Performance ratings are based on outputs achieved as listed under investment area details in this annual report. Targets are determined by considering levels of government funding, as listed in the Corporate Plan and any subsequent adjustments over the financial year. Outputs are listed in Appendix 3.
- v. In addition to specific expenditure, community engagement is integrated into the delivery of outputs across all investment areas outlined above.
- vi. These are costs rather than investments. Costs are embedded within other investment areas.
- vii. The approach to calculating Community and Governance was revised in 2020-21 and prior years were recalculated for consistency.

### Financial summary 2017-18 to 2021-22, \$000 <sup>i</sup>



- i. See Financial results summary on page 110 for details.



## Aggregate output performance across all investment areas in 2021-22

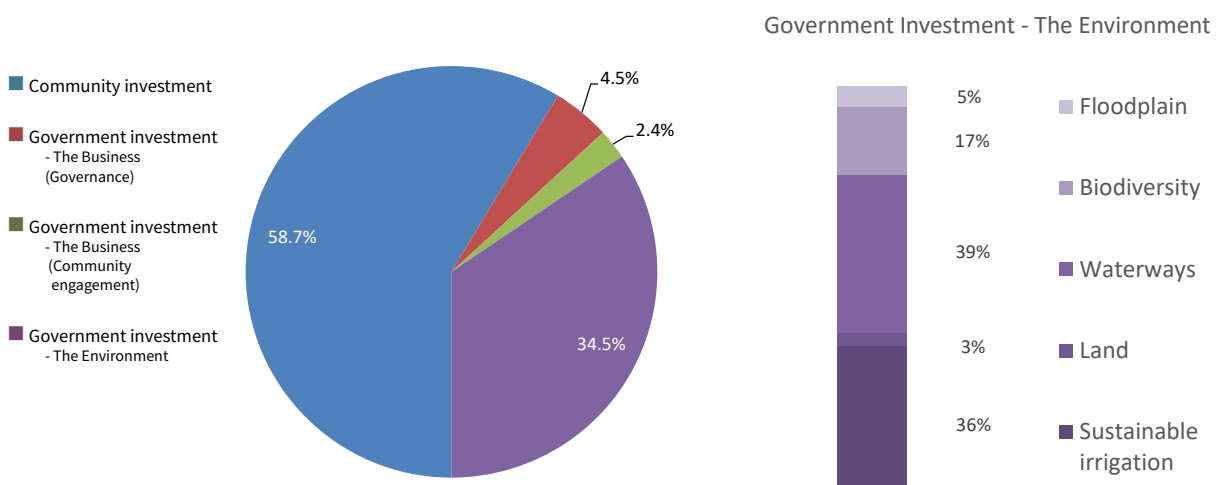
Output <sup>i</sup>	Achieved	Target <sup>ii</sup>	Performance	
			% achieved	Rating
Remnant vegetation fenced, hectares	252	219	115	Exceeded target
Wetlands fenced, hectares	4	2	200	Exceeded target
Rivers and streams fenced, hectares	90	-	-	Exceeded target
Riparian land fenced, hectares	94	2	4,712	Exceeded target
Long-term conservation agreements, hectares <sup>iii</sup>	67	-	-	Exceeded target
Indigenous revegetation planted, hectares	374	316	118	Exceeded target
Irrigation drains built, kilometres	-	-	-	-
Reuse systems installed, numbers	-	-	-	-
Laser levelling, hectares	719	-	-	Exceeded target
Groundwater pumps installed, numbers	-	-	-	-
Weeds treated, hectares	2,108	1,848	114	Exceeded target
Pest animal control, hectares	157,242	117,807	133	Exceeded target
Environmental water use, megalitres	934,367	-	-	-
River or stream bed and bank protection actions, kilometres	-	-	-	-
Fishway structures installed and barriers modified, numbers	-	-	-	-
Threatened species projects, numbers	-	-	-	-
Whole farm plans prepared, numbers	21	30	70	Below target

- i. Outputs shown in this table are derived from the more detailed set in Appendix 3, including the full list of footnotes. Outputs are described in Appendix 1 under 'Annual performance'. Detailed outputs relating to each investment area are listed in sections devoted to each investment area throughout this report.
- ii. Targets are determined by considering levels of government funding as listed in the Corporate Plan and any subsequent adjustments over the financial year.
- iii. These are shown as 'Binding management agreements' in the detailed outputs in Appendix 3. This target will only be reported once a covenant is on title, which may take more than 12 months.

### Descriptions of output performance

Investment area details in the community and environment section pages 24 to 87 describe actions undertaken in 2021-22 and illustrate integration between programs, government agencies and priorities, regional authorities, community organisations and individuals.

### Goulburn Broken investment share <sup>i, ii</sup>



- i. See bar chart on page 34 for cost-sharing details.
- ii. See investment and gross output performance in investment areas table on page 22 for more detail.

# The Regional Catchment Strategy, resilience and climate change

Compiled by. Kate Brunt and Ashley Rogers.

This section reports on the planning approach and implementation against objectives of the Goulburn Broken Regional Catchment Strategy 2021-2027 (RCS) and the Goulburn Broken CMA Corporate Plan 2021-22. The RCS provides the overall strategic context for details of implementation reported in other sections.

The RCS:

- is developed with the community and is aimed at achieving social, economic and environmental benefits
- is a requirement of the *Catchment and Land Protection Act 1994*
- was developed in 1997 (coinciding with the advent of CMAs) and revised in 2003, 2013 and 2021.

## The resilience approach

In recent years, the Catchment's communities and environment have been severely tested by fires, droughts, floods, the global financial crisis, COVID-19 pandemic and other major events, catalysing the CMA's focus on developing resilience.

Resilience is the ability of the Catchment's people and environment 'to absorb a shock or setback and to flourish in spite of it, maybe even because of it' (Outback, Apr/May 2017). It does not mean 'ploughing through' and doing what we have always done. It is the capacity to cope with change and continue to evolve in positive ways.

The resilience approach to catchment management focuses on connections between people and nature, how these connections change, and at what point this could completely transform our social and ecological systems. Understanding system resilience helps us identify where and how to intervene to influence its future direction and achieve desired, balanced goals for natural resource management.

The CMA follows key principles for developing the general resilience of the Catchment:

1. Develop a complexity view of the world – shifting from a linear perspective to a complexity perspective recognising systems.
2. Plan for change – governance approaches that embrace change, which in turn helps the Catchment prepare for, respond to and learn from change.
3. Design for flexibility across multiple possible futures – design our business to be flexible, mobile, and moveable, allowing for easy future adaptation.
4. Foster cohesion, self-organisation, and local responsibility – fosters cohesive communities that have the internal capacity to find solutions rather than relying on external support, are better able to respond to disturbance and capitalise on opportunities.
5. Manage connectivity – maintains and restores connectivity to allow flow between parts of a system (such as knowledge and resources). Considers under or over connections which can present risks to the business.

6. Value, retain and build diversity and redundancy – provide options and potential for different responses under stress. This includes building diversity (of people, cultures, practices, land uses and so on) to increase different responses to shocks and stress. It also involves redundancy or back-ups that can perform similar roles in a system, which reduces the likelihood of failure and aids recovery.
7. Focus on slow variables, leverage points and tipping points – builds system awareness and focuses efforts where they can be most useful (such as causes rather than symptoms of the problem).
8. Learn for change – learning-by-doing and forward-focused learning that can drive adaptation and transformation. This is more useful than relying on hindsight and past experience when dealing with high uncertainty and change.

(Ryan, P; 2018, Goulburn Broken CMA resilience principles workshop, adapted from Biggs, RM 2012.)

## Regional Catchment Strategy (RCS)

The Goulburn Broken Regional Catchment Strategy (the Strategy) is a vision for the integrated management of natural resources in the Catchment. It is a blueprint for improving catchment health and builds on achievements and lessons from the past. The strategy describes the current condition of the natural resources, principles to guide change, priority actions and what success looks like in 2040.

It is an ambitious strategy and describes the urgent and large-scale change required to improve the Catchment's natural resources and mitigate climate change. In addition to current activities and investment, we will need to find alternative ways of doing things and new investment sources to achieve the outcomes of the Strategy.

The Strategy is for all organisations, groups and individuals contributing to the Catchment's natural resource management. We all have an important role to play to reverse the declining health of the Catchment's land, water and biodiversity. Goulburn Broken CMA is responsible for coordinating and monitoring the strategy.

A resilience approach underpins the strategy and focuses on how we can increase the capacity of the Catchment to cope with change and evolve positively.

The Strategy is built on more than 30 years of achievements, including the 1997, 2003 and 2013 strategies. This is the first time the Strategy has been presented as a website (<https://goulburnbroken.rcs.vic.gov.au/>). PDF versions are also available to download on the website.

The diagram on the facing page provides a summary of the strategy.

# Goulburn Broken Regional Catchment Strategy 2021-27

**Purpose:** Collaborative strategy to guide actions to improve and protect the Goulburn Broken Catchment's land, water, biodiversity and community.



## Regional Catchment Strategy coordination and monitoring

Goulburn Broken CMA is responsible for the coordination and monitoring of the Strategy under the *Catchment and Land Protection Act 1994 (CaLP Act)*. Coordinated, collaborative and innovative implementation across a diverse range of organisations, groups and individuals is essential if we are to achieve the Strategy's visions for the future and long-term goals. Goulburn Broken CMA has developed a project plan to coordinate and monitor the Strategy, with three broad objectives:

1. Coordinate overall communication, engagement, and collaboration on the Goulburn Broken RCS.
2. Support Goulburn Broken RCS implementation through influencing sub-strategies and implementation plans, seed funding and capacity building.
3. Develop and implement a monitoring, evaluation, reporting and learning plan to monitor progress against the Goulburn Broken RCS outcomes and adapt implementation.

The project will be ongoing throughout the life of the strategy, and if successful will achieve the following outcomes:

1. Catchment partners have strong ownership of the Goulburn Broken RCS and collaborate on its implementation.
2. Resilience thinking guides Natural Resource Management in the Goulburn Broken catchment.
3. Implementation of the Goulburn Broken RCS is adaptive, using a learning-by-doing approach.

Key project activities during 2021-22 included establishing project governance arrangements; launching the Goulburn Broken RCS; release of seed funding for collaborative, innovative projects; participation in the Catchment Stewardship MERI project and development of the Goulburn Broken RCS monitoring, evaluation, reporting and learning plan.

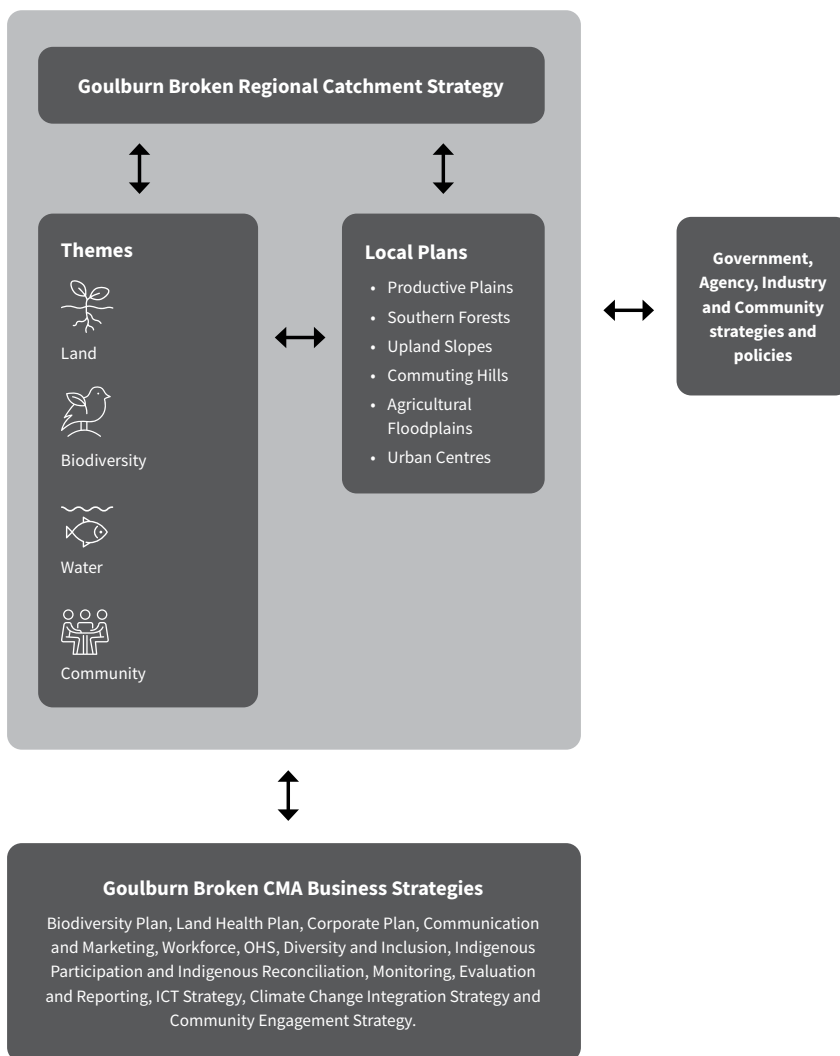
## Corporate Plan 2021 -22

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 RCS and describes priorities in line with the Minister's letter of expectations. 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:

- Sustainable Irrigation (pages 75-87)
- Land and Biodiversity (pages 58-74)
- Waterways and Floodplain (pages 38-57)
- Community (identified as 'Corporate' in the Corporate Plan pages 33-37).

## Regional Catchment Strategy and sub-strategies structure<sup>i</sup>

i. see Appendix 8 for the evolutionary status of the sub-strategies.



## Victorian Government priority policy areas

As outlined in the Minister’s letter of expectation.

Victorian Government priority policy area measure:	Goulburn Broken CMA contribution to the priority areas	Achievement details for 2021-22 see page
<b>Climate change - Active investigation into new opportunities to sequester carbon</b>		
<ul style="list-style-type: none"> <li>Explore opportunities to sequester carbon and generate offsets.</li> <li>Progress on climate change adaptation initiatives outlined in the climate change and catchment strategies.</li> </ul>	Goulburn Broken CMA will continue to support the statewide climate change coordinator and be actively involved in the statewide projects aimed developing projects that support carbon sequestration in the catchments.	32
	Goulburn Broken CMA will also support where possible the design and implementation of the Bushbank initiative.	60
	Goulburn Broken CMA continues to look for opportunities to integrate climate adaptation into all programs, without specific funding to implement a climate change adaptation program. This includes considering climate change projections in project development. The renewed RCS will outline a range of climate change adaptation actions to be implemented with adequate resourcing.	24-25, 32, 63, 72

*Aligned to Goulburn Broken CMA outcome – Responsive and effective Goulburn Broken CMA, partners, and communities.*

Victorian Government priority policy area measure:	Goulburn Broken CMA contribution to the priority areas	Achievement details for 2021-22 see page
--	--	--

**Waterway and Catchment Health – Improved catchment and waterway health and resilience**

<ul style="list-style-type: none"> <li>– Develop and coordinate the implementation of our new Regional Catchment Strategy according to legislative changes and new guidelines established by The Victorian Catchment Management Council.</li> <li>– Deliver integrated catchment management in line with Water for Victoria and building on the legacy of Our Catchments Our Communities for better catchment stewardship with strengthened performance across environmental, social and economic outcomes.</li> <li>– Report on Catchment Partnership Agreements for your region in accordance with the Framework for Catchment Partnership Agreements.</li> </ul>	<p>Goulburn Broken CMA will renew the Regional Catchment Strategy in line with the guidelines and through extensive engagement. Goulburn Broken CMA will implement a resilience approach to RCS planning that builds on local Social Ecological Planning undertaken through Our Catchment, Our Communities.</p>	24-25
	<p>Goulburn Broken CMA will complete a review of the Regional Waterway Strategy in 2021-22.</p>	44
	<p>Goulburn Broken CMA will also contribute to the annual CMA Actions and Achievements report which highlights environmental, social, cultural and economic outcomes.</p>	35
	<p>Goulburn Broken CMA will participate in the Catchment Stewardship MERI Project.</p>	25
	<p>The large-scale projects outlined in Water for Victoria and anticipated to be funded through the 3-year Victorian Water Programs Investment Framework will be delivered to the extent funded. Specifically, this is the continuation of the Strathbogie Streams and the Bogies and Beyond projects and the initiation of a new flagship project.</p>	44, 65
	<p>Goulburn Broken CMA is building on the success of the Our Catchments, Our Communities project 'Bogies and Beyond'. Key learnings from the project will be incorporated into RCS renewal and key activities will be maintained through the partnerships that have been developed during the project. This will include working closely with both Taungurung Land and Waters Council and Yorta Yorta Nation Aboriginal Corporation in project delivery and planning.</p>	24-25, 36, 61, 65
	<p>Goulburn Broken CMA will report on the Catchment Partnership Agreement through the Goulburn Broken CMA Annual Report. These will be reviewed through the support of the Our Catchment Our Communities project funded through the 3-year Victorian Water Programs Investment Framework in accordance with the Statewide Framework for Catchment Partnership Agreements.</p>	33

*Aligned to Goulburn Broken CMA outcome – The waterways and wetlands of the Goulburn Broken region are vibrant and resilient so that communities can enjoy the values and benefits they provide.*

**Resilient and liveable cities and towns – Healthy communities and resilient, liveable environments**

<ul style="list-style-type: none"> <li>– Collaborating with water corporations and local government, including the participation in Integrated Water Management Forums, to help facilitate integrated water management, with a focus on enhancing public open spaces.</li> <li>– Participating in the development and implementation of integrated water management plans, particularly through prioritising measures to enhance urban waterway values.</li> </ul>	<p>Goulburn Broken CMA will continue to actively participate in the Goulburn Broken Integrated Water Management Forum. This will support delivery of, and identifying of, new collaborative projects for consideration in the Goulburn Broken Strategic Directions Statement</p>	44
	<p>The GMID Resilience Strategy has been developed and is now a key tool for the engagement of the broader regional community as part of implementation. The Strategy moves the region on a path to greater collective strength under the resilience framework. This will require a collective shift in a way of operating from all stakeholders.</p>	81, 82, 84

*Alignment to Goulburn Broken CMA outcome – The waterways and wetlands of the Goulburn Broken region are vibrant and resilient so that communities can enjoy the values and benefits they provide.*

Victorian Government priority policy area measure:	Goulburn Broken CMA contribution to the priority areas	Achievement details for 2021-22 see page
<b>Water for Agriculture – A productive and profitable irrigation sector and vibrant and resilient regional communities that adapt</b>		
<ul style="list-style-type: none"> <li>– Promote sustainable irrigation management practices to support the growth and viability of regional communities.</li> <li>– Planning and coordination activities to manage salinity, waterlogging and water quality in agricultural areas.</li> <li>– Providing flexibility for agriculture to continue to adapt to change and help the sector do more with less water.</li> </ul>	<p>Goulburn Broken CMA will continue to deliver onground works to manage issues around surface drainage and sub surface-drainage with Goulburn-Murray Water.</p> <p>Goulburn Broken CMA will manage and report on salinity issues as per the requirements under the Basin Salinity Management 2030.</p> <p>Goulburn Broken CMA through its program delivery will continue to deliver Whole Farm Planning, support extension activities and improved energy system understanding and land use understanding across the irrigated landscape.</p> <p>Goulburn Broken CMA will continue to work with catchment partners to develop a program to assist with the modernisation of farm systems that leads to optimised public irrigation system assets and reduced water losses.</p> <p>Improving farm systems to allow for a future with less water in the Goulburn Murray Irrigation District (GMID) (and related irrigation footprint issues) is a key component in planning for resilient communities. Goulburn Broken CMA will continue to lead the GMID community in considering the transformation of the region particularly through the recently developed GMID Resilience Strategy and its key interventions.</p> <p>Activities to increase knowledge around the impacts of land use changes and complementing it by supporting implementation of appropriate agricultural practices will continue.</p> <p>The implementation of the Agricultural Redevelopment Coordination will be a key component of the program over the next three years.</p>	<p>83</p> <p>83</p> <p>81</p> <p>81</p> <p>81</p> <p>72-73, 81, 82, 84</p> <p>81</p>

*Aligned to Goulburn Broken CMA outcome - The Shepparton Irrigation Region community leads Australia in producing food in harmony with the environment.*

<b>Recognise recreational values – Support the well-being of communities by considering recreational values of waterways</b>		
<ul style="list-style-type: none"> <li>– Water services that explicitly consider recreational values, within existing frameworks.</li> <li>– Engagement with the community to identify and prioritise opportunities to deliver recreational objectives relating to the management of water and waterways.</li> <li>– Accessible and user-friendly information for recreational users about river and waterway condition to help community members plan their recreational activities.</li> <li>– Collaboration with other organisations and government agencies to explore and progress opportunities to support recreational values.</li> </ul>	<p>In recent years Goulburn Broken CMA has worked to strengthen relationships with recreational users of waterways. Significant ground has been made with recreational angling groups, with support of other government agencies, including VRFish, The Australian Trout Foundation and Native Fish Australia. In the past 12 months COVID-19 restrictions hampered progress in this area but it is anticipated that in 2021-22 Goulburn Broken CMA can continue to progress initiatives in this area.</p> <p>Recreational values are considered in the renewal of the Regional Catchment Strategy.</p> <p>Goulburn Broken CMA will implement a Recreational Values project that is aimed at protecting the river and improving access for recreational purposes.</p> <p>The understanding of the farming community of the importance of the environmental watering of key features has improved but is continually challenged by the affordability of water used for productive agriculture. Land management and recreational activity representatives are members of Environmental Water Advisory Groups.</p>	<p>43, 46-47</p> <p>24-25</p> <p>45</p> <p>82</p>

*Alignment to Goulburn Broken CMA outcome – The waterways and wetlands of the Goulburn Broken region are vibrant and resilient so that communities can enjoy the values and benefits they provide.*

Victorian Government priority policy area measure:	Goulburn Broken CMA contribution to the priority areas	Achievement details for 2021-22 see page
<b>Community engagement and partnerships - A strong engagement focus that is a cornerstone of all CMAs' functions</b>		
<ul style="list-style-type: none"> <li>— Continue to build extensive, effective, and consistent approaches to community engagement and partnerships in regional planning and implementation.</li> <li>— Work collaboratively with organisations and communities to strengthen engagement approaches and capacity.</li> </ul>	<p>The RCS renewal involved extensive community and partner engagement. This engagement will continue to be built on through the RCS implementation. For example, collaborative planning sessions with catchment partners, and joint monitoring on RCS medium-term outcomes across a range of catchment partners. Goulburn Broken CMA has also implemented an RCS Pledge process to enable the community to engage and support the implementation of the RCS. So far 26 organisations and 51 individuals have pledged their support.</p>	24-25
	<p>Supporting, promoting, and building capacity in our community networks across the Catchment. Key focus and community-led groups include:</p> <ul style="list-style-type: none"> <li>• Shepparton Irrigation Region (SIR) People Planning and Integration Committee</li> <li>• Landcare Network Chairs Group</li> <li>• Goulburn Broken Indigenous Participation Group</li> <li>• Local Government Biodiversity Reference Group</li> <li>• Land and Biodiversity Implementation Forum</li> <li>• Environmental Water Advisory Groups (3)</li> <li>• Community-driven Local SES Planning.</li> </ul>	34-37
	<p>Note, these groups feed into a much larger community network i.e. 96 community NRM groups, 12 NRM networks, over 5,089 members. This includes the ongoing use of Landcare facilitators and coordinators who support the delivery of many projects across the Catchment.</p>	
	<p>Focus on the Goulburn Broken CMA-led Senior Combined Partners forum that brings together the leaders from across the agencies that are relevant to the irrigation landscape in the SIR and continuation of the Goulburn Broken Partnership Team.</p>	84

*Aligned to Goulburn Broken CMA outcome – Responsive and effective Goulburn Broken CMA, partners, and communities.*

<b>Leadership, diversity and culture – Reflect the diverse needs of the community</b>		
<ul style="list-style-type: none"> <li>— Developing strategies and goals that will increase cultural diversity in the workforce and gender equity in executive leadership.</li> <li>— Encouraging staff participation in the Victorian Public Sector Commission People Matter Survey or equivalent survey.</li> </ul>	Implement the 2017-2022 Diversity and Inclusion Plan for Goulburn Broken CMA.	89
	Implement the Flexible Workforce Strategy.	89
	Renew the Goulburn Broken CMA Workforce Strategy.	92
	Renew and implement the Goulburn Broken CMA Reconciliation Action Plan.	61
	Participation in People Matter Survey with the results to inform workforce actions.	88, 92
	Annual Board Performance Assessment and report, including a skill matrix assessment.	101
Implement the <i>Gender Equality Act</i> requirements.	89	

*Alignment to Goulburn Broken CMA outcome - Responsive and effective Goulburn Broken CMA, partners, and communities.*

Victorian Government priority policy area measure:	Goulburn Broken CMA contribution to the priority areas	Achievement details for 2021-22 see page
<b>Recognise and support Aboriginal cultural values and economic inclusion in water sector – Effective engagement of Traditional Owners</b>		

<ul style="list-style-type: none"> <li>– Number of effective engagements and partnerships with Traditional Owners in water planning and management that have led to improved outcomes for Aboriginal communities.</li> </ul>	Goulburn Broken CMA will continue to facilitate the Indigenous Consultation Forum, including Yorta Yorta Nation Aboriginal Corporation and Taungurung Land and Waters Corporation with a focus on the renewal of the RCS. Goulburn Broken CMA will continue to explore opportunities to increase Traditional Owner involvement in our work, including project planning, contributing to project teams and service delivery on Country.	61-64, 72
	Goulburn Broken CMA will also engage both Registered Aboriginal Corporations to carry out onground works on Country, through Victorian and Australian government funded projects.	61-66
	Goulburn Broken CMA is seeking Yorta Yorta work crew Woka Walla's involvement in the delivery of the Goulburn River Environmental Flow monitoring.	36, 46
	Goulburn Broken CMA recognises Taungurung Land and Waters Corporation's recent settlement case and will work to support Taungurung plans to work on Country.	61-66
	Taungurung Land and Waters Corporation have identified key cultural wetland sites and are involved in the planning delivery of environmental water to those sites.	46
	Goulburn Broken CMA is seeking involvement from Traditional Owners in the new flow study for the lower Goulburn River.	36
	Goulburn Broken CMA will continue to work with Taungurung Land and Waters Corporation and Yorta Yorta Nation Aboriginal Corporation through to the finalisation of the RCS and the implementation of the Strategy.	24-25
	Importantly 2020-21 saw the early phases of implementation of the Taungurung Recognition and Settlement Agreement. While this agreement is fully welcomed and supported by Goulburn Broken CMA the full extent of costs and benefits of this to Goulburn Broken CMA programs is unknown.	36

*Alignment to Goulburn Broken CMA outcome – Responsive and effective Goulburn Broken CMA, partners, and communities.*

<b>Improved performance and demonstrated results against outcomes</b>		
---	--	--

<ul style="list-style-type: none"> <li>– Collaborating with DELWP to improve reporting systems and processes.</li> <li>– Demonstrate outcomes of government investment into waterways and catchment health.</li> <li>– Delivering efficiency through shared services, smarter procurement, and lower-cost technology.</li> <li>– Commit to working collectively via Vic Catchments membership to strengthen collaboration and performance in the catchment management sector in Victoria.</li> </ul>	Goulburn Broken CMA maintain the policies, procedures, and resources to deliver on reporting and funding obligations.	88
	Goulburn Broken CMA will contribute to the Annual Report and Actions and Achievements Report.	35
	Goulburn Broken CMA will continue to be an active member of the Regional Investment Coordinators Group which collaborates with DELWP on reporting process and systems.	35
	Goulburn Broken CMA continues to work along with the nine other CMAs to identify arrangements to reduce costs through shared services (e.g. GIS) and systems (e.g. Finance), smarter procurement (e.g. VicFleet), improved reporting and analytics and lower-cost technology (e.g. GIS) to reduce the impact of the funding environment.	88
	Goulburn Broken CMA will continue as a member of Vic Catchments.	35
	Goulburn Broken CMA will continue to lead and participate in programs that look to monitor and report on interventions in waterway health e.g. VEFMAP, WetMAP and RIMP.	47



## 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, 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. This was first described in the 2004 Goulburn Broken CMA Monitoring Evaluation Reporting (MER) Strategy that was reviewed and updated in 2016-17 to align with the RCS. The Ready for Change – Evaluation Strategy for the Goulburn Broken Catchment 2017-22 articulates how Goulburn Broken CMA monitors progress against strategies and plans. This includes the need for adaptation of existing strategies, or the development of new strategies in response to emerging issues or critical drivers, within a resilience framework.

Local social-ecological system (SES) planning across the Catchment is helping Goulburn Broken CMA understand critical attributes and thresholds. This is critical in local adaptive planning and implementation to build the resilience.

Integrated catchment management involves decisions based on information from different backgrounds and disciplines.

Goulburn Broken CMA's efforts to standardise outputs since 2002-03 (see page 154) and to summarise progress via long-term scorecards since 2005-06 (see pages 14-19) are important in developing a uniform language and framework, enabling comparisons over time and helping 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,  $\text{Outputs} \times \text{Assumptions} = \text{Outcomes}$ , 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.

Investment in partnerships that enable Goulburn Broken CMA to invest in and access research and development activities and information continues to be a priority. Efforts during 2021-22 are highlighted within each investment area section of this Annual Report.

## What's next?

- Begin supporting the implementation of the new Regional Catchment Strategy. This will include the development of an implementation plan and an engagement plan. There will be a focus on the RCS pledge and increasing buy-in for the implementation of the RCS.
- Continue implementing and reviewing sub-strategies, as has been done for more than two decades, aligning them with the RCS and its resilience approach and emphasis on social-ecological systems. Each sub-strategy's context varies and continuously changes, so they are renewed 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.
- Continue building knowledge of the Catchment's critical thresholds and tipping points, including how to monitor and use them in Natural Resource Management planning, especially in discussions around transformation and implementing an adaptive management framework.

## Climate change

Climate change science continues to support the need to act, with local actions playing an important role in the global challenge. This supports why responding to climate change impacts remains an important focus for Goulburn Broken CMA. Recently, there have been more frequent extreme events such as floods, fire and drought because of climate-change related storms, drier winters and springs, and less reliable autumn rains.

Goulburn Broken CMAs 'Climate Change Integration Strategy 2012-2015' remains an important guide to ensure consideration of climate change is embedded within business decisions and processes.

Key guidance includes:

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

Goulburn Broken CMA considers climate change in all aspects of our catchment approach and is also focused on our own footprint and pathway to net zero emissions. Goulburn Broken CMA continues to aim to provide leadership in supporting community and natural environment responding and adapting to climate change, as demonstrated through the 2021-22 performance and activities presented in 'What's next'.

## 2021-22 performance

Goulburn Broken CMA was focused on delivering the renewed Regional Catchment Strategy which had a significant focus on climate change impacts. Goulburn Broken CMA were also active through statewide collaboration, facilitated by the Statewide Climate Change Coordinator. Deliverables included:

- Integration of climate change into the development of the Goulburn Broken Regional Catchment Strategy 2021-27, including guidance for implementation.
- Goulburn Broken CMA CEO continued in the role as the portfolio lead for climate change for CMAs across the state.
- Goulburn Broken CMA was a member of the steering group that has delivered investigations in carbon sequestration potential through the Carbon Sequestration Analysis Project.
- Recruitment of the statewide climate change coordinator, which will continue to deliver focused climate change activities for the region and across the state.
- Goulburn Broken CMA (through the statewide coordinator role) participated as a project team member working with VicWater focusing on Victorian Water Corporations net zero obligation. CMAs have a supportive role in implementation, as well as advocating co-benefit and co-investment opportunities.

- Goulburn Broken CMA is exploring what partnerships with carbon developers could look like and what the opportunities are for Natural Resource Management outcomes – co-benefits.
- Goulburn Broken CMA is a member of the Victorian CMA NRM Planning for Climate Change Forum that began in 2013. Through the coordinator, the Forum actively works with the Victorian Government to influence and embed recently developed regional climate change adaptation plans and strategies into State policy development.

## What's next?

- Support and facilitate the implementation of actions and deliverables relating to climate change response identified in the Goulburn Broken Regional Catchment Strategy (2021-27).
- Implement the recommendations identified through the internal 'Climate Change Adaptation' Audit (2021), including a review and update of the Goulburn Broken CMAs 'Environment Footprint Policy' and supporting documents.
- Develop and implement a net-zero pathway for Goulburn Broken CMA.
- Continue to host the Victorian CMA Statewide Climate Change Coordinator, and participate in associated projects, including the VicWater net zero project and working with other research organisations.

# Investment area - Community

Compiled by, Kate Brunt, Tony Kubeil, Gaye Sutherland, Fiona Johnson, Darelle Backway, Kerstie Lee and Zuzanna Lelito.

## Long-term and annual scorecard <sup>i</sup>

2021-22 performance	On target
---------------------	-----------

Catchment condition <sup>ii</sup>	1990	2022	Long-term risk
			<b>MEDIUM</b>

Traditional Owners involvement in Natural Resource Management is increasing supported by policy and legislative change.

Communities, partner organisations, farmers and others have achieved significant onground changes and are influencing attitudes and behaviours within Natural Resource Management (NRM).

Diverse stakeholders are represented on high-level regional and local community NRM forums: farmers, Traditional Owners, local and regional government agencies, Landcare and recreation groups, and others work well in partnership and are strongly networked. Increased urbanisation continues to influence the catchment community.

Funding for agencies to support local community groups and individuals is uncertain and volunteers are ageing and participation in government programs is dropping off due to increasing complexity.

There has been an increased ability to engage with parts of the community as a result of the increase in technological skill stimulated by COVID-19. However, COVID-19 has limited engagement in some sectors of the community where face to face engagement is preferred

The Goulburn Broken community is changing and as a result there is a shift in who and how the community influence and lead.

Resilience assessment						Long-term strategic implementation <sup>v</sup>	
Critical attribute affecting long-term catchment health	Contribution to system function <sup>iii</sup>		Risk to system thresholds/tipping point <sup>iv</sup>			Start	Stage
	1990	2022	Trend 2019-22	Long-term (10+ years)			
				Current support <sup>vi</sup>	No support <sup>vi</sup>		
Community capacity to influence and lead				<b>HIGH</b>	<b>VERY HIGH</b>	1990	Escalated response <sup>vii</sup>
Community capacity to be involved and act onground				<b>MEDIUM</b>	<b>HIGH</b>	1990	Watch & adapt

The certainty rating for Community is medium due to well establish links with the community and feedback provided through community forums.

- i. Appendix 1 describes the analytical framework. Ratings legend is inside front cover.
- ii. Critical attribute contributions and risks are major considerations in rating catchment condition, along with indicators on higher level outcomes from managing these critical attributes, such as viability of threatened species and gross value of agricultural productivity. Long-term risk assumes ongoing support at current levels.
- iii. System is Community; benchmark for contribution is the desired level, as defined (formally or informally) in 2022.
- iv. Risk that system will not be in desired state of resilience in long term because of level of critical attribute contribution. Risks can be from biophysical threats, such as climate, or other, such as community's adaptive capacity. Desired state might be other than current state.
- v. Long-term strategies vary significantly in formality: 'start' approximates when holistic, integrated approach to influencing critical attribute began.
- vi. Support includes government funding and community (including individual) in-kind and financial investment for onground works and helping communities and individuals adapt.
- vii. 'Escalated response' recognises that the situation has shifted so significantly that difficult and sensitive questions about transformation and transitioning must be considered.

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

2019-20	2020-21	2021-22	2022-23 <sup>ii</sup>
803	926	1,144	798

- i. The approach to calculating Community was revised in 2020-21 and prior years were recalculated for consistency.
- ii. Forecast is based on the Corporate Plan 2022-23.

### Strategic references

The Goulburn Broken Community Engagement Strategy and Action Plan 2018-2020 along with the Goulburn Broken Community NRM Action Plan 2020-2025 factor in numerous national, state, local strategies and policies that aim to engage community groups, partner agencies and individuals, supporting them in leading long-term decisions and implementation. Several strategic engagement documents reflect the needs and knowledge of the Catchment's Traditional Owners, the Yorta Yorta and Taungurung peoples. See Appendix 5 for the list of strategic documents related to community engagement.

## Background

The future of the Goulburn Broken catchment's environment depends on its people. The regional community typically invests \$1.50 for every dollar of government funding (see bar chart below). Influencing how others invest is therefore an important activity for the Goulburn Broken CMA.

This section demonstrates how the Goulburn Broken CMA is committed to involving individuals and organisations to make the best long-term decisions and achieve onground change.

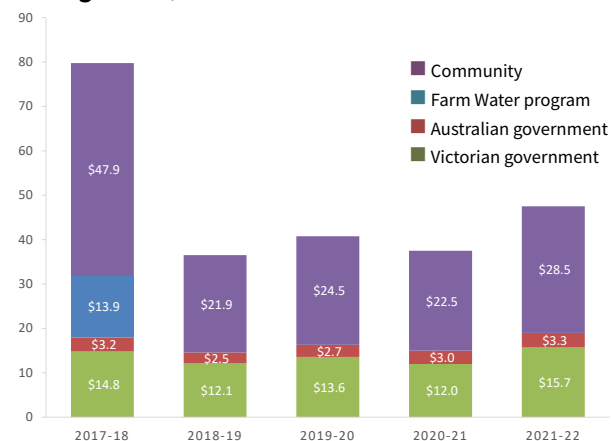
## Catchment condition - Community (since 1990)

Goulburn Broken catchment communities' resilience benefit from the legacy of having to face significant threats to the environment and economy in the late 1980s and 1990s. Community leaders at the time recognised the complexity of threats, uncertainties about responding, and the need for a whole-of-Catchment response. Integrated catchment management, along with strong partnerships between communities and government, were at the core of the approach.

A step-change in integration was achieved when waterways and land management responsibilities became part of regionally based organisations with the advent of Victorian CMAs in 1997. The integrated catchment management approach of the Goulburn Broken CMA enabled immediate and strong follow-up responses to significant threats and opportunities in recent years. The Catchment's communities have demonstrated their ability to self-organise and adapt. However, in recent time the communities ability to deliver on ground and to influence and lead Natural Resource Management (NRM) has been somewhat diminished.

For more than a decade, the Goulburn Broken CMA's recognition and inclusion of Traditional Owners (Yorta Yorta and Taungurung peoples) and their knowledge has been reflected in managing the Catchment. Goulburn Broken CMA has supported Traditional Owners to develop 'Whole of Country Plans' that reflect their values, actions and objectives in relation to caring for country. This has been reflected in the high level of engagement of both Registered Aboriginal Parties in the renewal of the Regional Catchment Strategy (RCS). Supporting the capacity of the Traditional Owners to be self-determining has been a priority and continues to be a priority.

## Major contributions to natural resources management, \$million



## Long-term strategy implementation progress and 2021-22 performance

Each Goulburn Broken CMA strategic document highlights the pivotal role of people in achieving environmental outcomes. Community capacity to influence and lead, to be involved and act onground are critical attributes for long-term community resilience. A major function of the Goulburn Broken CMA is to support groups, individuals and agency partners, so they have adequate capacity.

Goulburn Broken CMA works in partnership with landholders, Traditional Owners, school children, community NRM groups and individuals to deliver programs across the Catchment that protect and improve its natural assets.

Efforts to boost the Catchment's resilience can lead to increasingly productive landscapes, which will support the long-term viability of our communities in the face of constant change.

Goulburn Broken CMA continues to measure the health of partnerships annually, in line with the partnership agreement.

Continue to engage in statewide and national NRM forums such as Vic Catchments and NRM Regions Australia.

## Community capacity

*Long-term (Corporate Plan) objective: By 2021, deliver 300 capacity building events.*

Community capacity activity includes:

- Performance of landholder (especially farmer) works consistent with the RCS, with works on thousands of sites covering thousands of hectares and multiple benefits. Onground works generally were on target for the given budget. See bar charts page 20 and 21.
- 35 per cent of 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 Surface Water Drains. See further information on page 83.
- Community organisations: 96 active groups, 12 community NRM networks; 3,207 members plus 3,238 volunteers (2021-22 Landcare survey); see also Regional Agriculture Landcare Facilitator (page 71).
- The 2021-22 year saw the completion of our COVID-19 interrupted grants program. Community groups demonstrated resilience in adaptation to the changing operational landscape and have retained some valuable skills along the way.
- \$1.7 million for 101 Victorian government and Australian government grants to community and partner organisations (see table page 37 for details).

Increasing stakeholder investment in, and support for, the Goulburn Broken RCS through 'Our Catchment, Our Communities' and associated programs. 48 individuals and 27 organisations have pledged their support to the recently renewed Goulburn Broken RCS 2021-27. This number is expected to grow as the strategy moves into implementation phase, with catchment partners contributing ideas to the monitoring of the strategy and developing innovative projects for seed funding.

## Awareness and information highlights 2021-22

- The Year of the Frog community awareness campaign generated a lot of interest from the general public as well as receiving widespread media coverage across print, radio, TV and online.
- An interactive webpage was launched to explain water for the environment and how it improves the health of the Goulburn River. The informative resource contains interactive text, photos, maps, diagrams and videos that describe water for the environment in Victoria's longest river.
- Continued to review and update content on the Goulburn Broken CMA website to make it more accessible, interactive and user-friendly. Over the course of the year, there was approximately 102,510 page views.
- The Goulburn Broken CMA has purchased a drone which is being utilised to gather video images from across the catchment and is being used for website and social media content.
- Continued increase in social media followers in the past year with Facebook at 3492 followers; Twitter 1857 followers (up from 1812); and Instagram 659 followers (up from 543). The newly established LinkedIn pages has 249 followers providing another platform for attracting employees, promoting the benefits of working for the Goulburn Broken CMA, sharing news and creating new networks.

- The regular Landcare Links and Chough Chat e-newsletters, produced by the Regional Agriculture Facilitator, are distributed to a total of more than 1500 subscribers.
- More than 20 media releases distributed with almost 100 per cent take up.
- Monthly session on ABC Goulburn Murray's breakfast show discussing all things flora and fauna.
- Monthly column in the Country News, reaching more than 44,000 households.
- Goulburn Broken CMA contributed to development of the Action and Achievements report with several case studies.

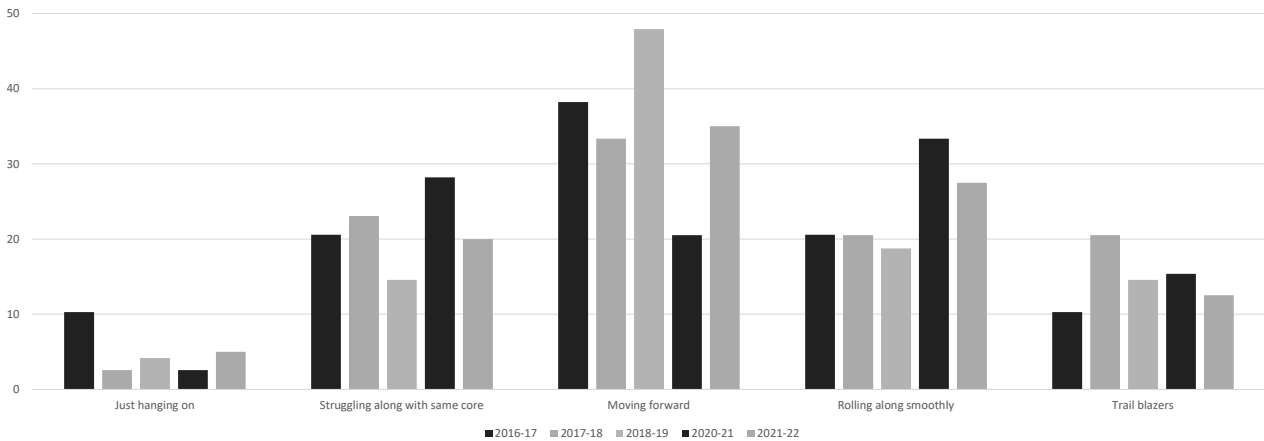
## Community volunteer contributions in 2021-22

Activity	Hours <sup>i</sup>
Onground works	11,557
Learning and training	7,034
Promotion and communications	2,081
Planning and other administration	7,230

i. Excludes network chair meetings and coordinator/facilitator meetings and their other work.

## Landcare group health status

Data from annual surveys of Landcare groups.



## Traditional Owner capacity, engagement and involvement

*Long-term objective: More Yorta Yorta and Taungurung people in sustainable employment, traineeships, and Goulburn Broken CMA-funded projects.*

Traditional Owner capacity continues to grow significantly through a partnership approach with the Goulburn Broken CMA, providing opportunity for on ground works delivery that has facilitated growth and an increase in skills/ capacity for Yorta Yorta Nation Aboriginal Corporation (YYNAC) and Taungurung Land and Waters Council (TLaWC) environmental work teams. Both YYNAC and TLaWC continue to expand their respective businesses and build capacity of staff engaged in their teams, delivering on key Regional Landcare Programs including the Barmah Ramsar project, the Mountain Pygmy-possum project and the Linking Landscapes project. In addition, the Recognition and Settlement Agreement between TLaWC and the Victorian government has placed increased emphasis on providing procurement opportunities for TLaWC Biik Environmental on country.

Training and engagement opportunities continue to be actively sought with Traditional Owners such as the floodplain ecology course and supporting business development through the Follow the Flowers project.

Goulburn Broken CMA has worked actively with landholders, Traditional Owners and partner agencies and to improve consideration and protection of potential cultural heritage values during the development of whole farm plans and irrigation developments.

Traditional Owner knowledge and language is actively sought after and included in the development of interpretive signage projects, publications, and engagement events with school groups. We have actively shared the YYNAC Dictionary app and purchased copies of a newly released Taungurung Bijil Ba Wudhi Deberra (Bijil and Moths) book for sharing with education partners.

TLaWC Biik Environmental have been engaged through the Mending Mountains for the Pygmy-possum project to undertake threatened species management and Traditional Owner engagement in caring for Country. YYNAC's Woka Walla works crew have been engaged to undertake on country works through the Barmah Country project, Linking Landscapes (RLP) project, Biodiversity Response Planning

Linking Lower Goulburn, and the Ribbons of Blue, Sashes of Green projects. We supported and advocated for Taungurung to present to the ACT Government at the Bogong Moth Workshop in Canberra, which was an opportunity to share learnings including Traditional Owner partnerships and collaborative discussions around future scenarios of Bogong populations.

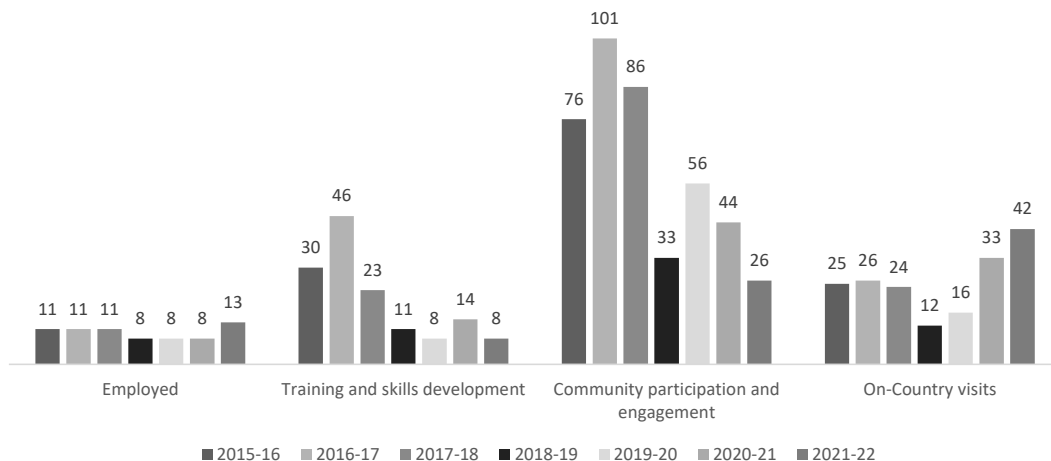
*Long-term objective: Increased use of Traditional Owner Knowledge in Goulburn Broken CMA projects*

Goulburn Broken CMA involves all staff and Board members in cultural awareness training to ensure that protocols for engagement and protection of Traditional Owner cultural heritage and values are understood across the organisation. Due to COVID-19, this was not undertaken during 2021-22, so we are aiming to undertake this training in 2022-23.

Traditional Owners continue to be involved in project delivery including on ground works (e.g. Mending Mountains for the Pygmy-Possum, Barmah Country, Linking Landscapes, and several Biodiversity Response Planning projects), planning and project design (e.g. Corop Wetland Complex, Reedy Lake, Gemmill's Sandhills) and cultural assessments and technical advice (e.g. Surface Water Management Program and River Health). The GB CMA supported the Tri-State Alliance and the Follow the Flowers projects which aims to encourage Traditional Owner business development. The GB CMA also had an educational stand at the YYNAC NAIDOC week celebrations at Barmah, and supported NAIDOC week through sharing of Traditional Owners events and knowledge. We continue to report on such activities through the Goulburn Broken CMA Reconciliation Action Plan.

### Traditional Owners involved in Goulburn Broken CMA projects

no. people



## Grants to community organisations from Victorian and Australian Governments

Victorian and Australian Government grants to community organisations for activities like revegetation and regeneration of native vegetation, control of invasive plants and animals, support for capacity building initiatives, and education and awareness raising activities.

Total grants paid to community groups and other organisations 2021-22	No. of projects	Amount paid \$ (ex GST)
Australian Government - Regional Land Partnerships Program	28	\$930,909
Australian Government - Other	1	\$6,391
Victorian Government - Biodiversity Response Planning	10	\$191,942
Victorian Government - Victorian Landcare Grants	37	\$324,300
Victorian Government - Victorian Water Programs Investment Framework	14	\$143,463
Victorian Government - Other	11	\$115,460
<b>Grand Total</b>	<b>101</b>	<b>\$1,712,465</b>

See Appendix 7 for full list of payments made during 2021-22.

The total grants paid in the table above will not reconcile with the grants paid amount in Note 3.3 of the financial statements.

The amount stated in the financial statements includes all incentives paid, including those to individuals for Biodiversity and River Health management activities.

### Tri-State Alliance

The Tri-State Murray NRM Alliance is made up of the seven Natural Resource Management agencies along the Murray River Corridor from Victoria, New South Wales and South Australia. The Alliance works together to build the capacity and capability of the region to 'Grow the Economy, Secure the Environment and Motivate the Community'.

The priorities identified in the Alliance Fish Connections strategy continue to be implemented by the partners with three of the four fishways constructed, 28 km of re-snagging and one of the three major irrigation screens now in place. The MDBA Native Fish Recovery initiative has funded the restoration of six of the remaining nine wetlands and this has led to significant work on further wetlands and surrogate habitats, native fish breeding and community involvement in habitat restoration for flood plain specialists. In addition, a fish recovery strategy was funded by the MDBA for the Mid-Murray Floodplain Recovery Reach. The recovery reach spans the Victoria and NSW Murray Floodplain and includes the Murray River, mid- and lower Goulburn River, Broken Creek, Barmah-Millewa Forest Icon Site, upper reaches of the Edwards-Wakool anabranch system and the lower Campaspe River.

The Tri-State Murray Alliance, as part of the Indigenous East-West Alliance, has continued to support the development of the six Indigenous businesses that are part of the initial pilot. These have now completed business plans with one business in horticultural production and the others initially focusing on honey production. The development is being supported by funding from Indigenous Businesses Australia. The focus on honey not only builds on the experience amongst the Noongar partners (from Western Australia) but also allows them to collectively meet an established market demand.

With the region emerging out of the restrictions due to the Coronavirus pandemic, the Alliance Executive has directed resources into refreshing its strategic focus. Two key background discussion papers have been developed – The Carbon Economy and Complementary Works – these build on the previous work on green investments and native fish implementation. Looking forward, the Alliance will continue to collectively implement and advocate for activities that support the Murray River corridor and its communities.

### What's next?

Goulburn Broken CMA will remain vigilant in watching and responding to potential and actual changes impacting on the Catchment's communities and their capacity to contribute to Natural Resource Management. Community engagement and partnerships continue to be a priority during implementation of the RCS and is supported by:

- Implementation of projects aligned to Our Catchments Our Communities.
- Build support of the implementation of the Goulburn Broken RCS.
- Supporting the implementation of the Goulburn Broken RCS within existing Landcare Networks to increase the leadership within our community
- Continuous investigation and development of the best ways to engage with the community to plan at a local scale.
- Renewal of the Goulburn Broken Community Engagement Strategy and Action Plan 2018-2020
- Continued support for statewide and national engagement and communication approaches, such as promoting the benefits of environmental flows.
- Continued engagement with TLAWC and YYNAC Indigenous Consultation Groups, including neighbouring North East and North Central CMA areas that also include Taungurung and Yorta Yorta Country .
- Implementation of Goulburn Broken CMA Community NRM Action Plan.
- Following the amazing effort of our volunteer community networks, the level of funded Landcare facilitator support from the Victorian government has increased from 4 FTE (8 positions) to 4.5 FTE (9 positions). The future support for our groups is looking bright.
- The updating of our Reconciliation Action Plan 2021-2023, demonstrates how the CMA is supporting and integrating Indigenous connectivity into our broader Natural Resource Management business.

## Investment area - Waterways

Compiled by: Mark Turner, Simon Casanelia, Daniel Lovell, Keith Ward, Tim Barlow, Meegan Judd, Simon Cowan, Jo Geddes, Christine Glassford, Corey Wilson, Pam Beattie, Sue Kosch, Kirsten Roszak, Collin Tate and Zara Marais.

### Long-term and annual scorecard <sup>i</sup>

2021-22 performance	Exceeded target
---------------------	-----------------

Catchment condition <sup>ii</sup>	1990	2022	Long-term risk
			<b>MEDIUM</b>

Water quality and fish populations have improved significantly from changes such as removal of stock-grazing and key fish-barriers, resnagging of streams, tree planting, waste water management and the delivery of water for the environment. Although blue-green algae and hypoxic blackwater events and pH levels are all increasing.

Dry periods and climate change continue to be a significant challenge.

Despite increasing waterbird habitat in the Goulburn Broken catchment through environmental flows, populations of many species across the Murray-Darling Basin seem to be declining.

Available water for the environment is being used to protect and improve the health and functioning of some waterways. However, there are opportunities to improve the effectiveness, including by addressing delivery constraints. Consumptive water en route also poses environmental challenges in some instances.

Waterways are also subject to increasing pressure from recreation and other land uses.

Local and regional agency and broader community partnerships associated with waterway management are strengthening.

Increasing unauthorised activity across the catchment is affecting waterways. There have been more blue-green algae outbreaks in recent years.

Resilience assessment						Long-term strategic implementation <sup>v</sup>	
Critical attribute affecting long-term catchment health	Contribution to system function <sup>iii</sup>		Risk to system thresholds/tipping point <sup>iv</sup>			Start	Stage
	1990	2022	Trend 2019-22	Long-term (10+ years)			
				Current support <sup>vi</sup>	No support <sup>vi</sup>		
Stream flows and wetland inundation - Dammed (regulated) streams				<b>MEDIUM</b>	<b>VERY HIGH</b>	2011	Early
Stream flows and wetland inundation - Undammed (unregulated) streams				<b>HIGH</b>	<b>VERY HIGH</b>	1995	Middle
Streamside (Riparian) vegetation				<b>LOW</b>	<b>HIGH</b>	1997	Late
Water quality				<b>MEDIUM</b>	<b>HIGH</b>	1996	Watch & adapt
Fish passage and habitat				<b>LOW</b>	<b>MEDIUM</b>	1997	Late
Community capacity to be involved and act onground <sup>vii</sup>				<b>HIGH</b>	<b>VERY HIGH</b>	1997	Middle

Certainty of rating is High. Certainty around general waterway condition is high due to repeated application statewide of the 'Index of Stream Condition'. This is supported by further strategy and knowledge work including the final review of the Regional Waterway Strategy, the review of the 20 year Water Quality Strategy, increased network of real-time water quality monitoring sites, annual fish population monitoring at selected sites, the statewide Instream Woody Habitat Assessment and increasing knowledge on management of water for the environment.

- Appendix 1 describes the analytical framework. Ratings legend is inside front cover.
- Critical attribute contributions and risks are major considerations in rating catchment condition, along with indicators on higher level outcomes from managing these critical attributes, such as viability of threatened species and gross value of agricultural productivity. Long-term risk assumes ongoing support at current levels.
- System is Waterways; benchmark for contribution is the desired level, as defined (formally or informally) in 2022.
- Risk that system will not be in desired state of resilience in long term because of level of critical attribute contribution. Risks can be from biophysical threats, such as climate, or other, such as community's adaptive capacity. Desired state might be other than current state.
- Long-term strategies vary significantly in formality: 'start' approximates when holistic, integrated approach to influencing critical attribute began.
- Support includes government funding and community (including individual) in-kind and financial investment for onground works and helping communities and individuals adapt.
- Includes regional government agency and stakeholder leadership, partnerships, and tools to change long-term directions and implement short-term onground changes.



## Government investment, \$000

2019-20	2020-21	2021-22	2022-23 <sup>i</sup>
4,283	4,868	6,571	4,659

i. Forecast is based on the Corporate Plan 2022-23.

### Strategic references

The Goulburn Broken Waterway Strategy 2014-2022 integrates direction and guidance from legislation, policies, strategies and plans at international, national, state, regional and local levels. Implementation of this strategy factors in prevailing circumstances, including current priorities identified through local planning (see page 25).

The final review of this strategy was completed in June 2022. Murray-Darling Basin Authority and Victorian Government water plans and strategies are pertinent references for waterways management. Appendix 5 includes a more complete list. Waterway management in regional Victoria is the responsibility of catchment management authorities (*Water Act 1989*, part 10).

### Background

Waterways benefit ecosystems cultural and spiritual values, recreation, human consumption, agriculture and irrigation, industry and commerce, and mental and physical wellbeing. Waterways are often central to the culture of the Goulburn Broken catchment's Traditional Owners, the Yorta Yorta and the Taungurung peoples.

Despite covering only two per cent of its area, the Catchment provides 11 per cent of the Murray-Darling Basin's water resources, providing major benefits within and beyond the Goulburn Broken catchment.

Waterways have been impacted by the construction of weirs for water storage, diversion of flows, native vegetation clearing and removal of snags (woody debris), use of groundwater, invasion by pest plants and animals, stock access, and urban and agricultural development.

Key changes in the second generation Goulburn Broken Waterway Strategy 2014-2022 included:

- incorporation of wetlands and lessons learnt, including from the Millennium drought and prior fires and floods
- incorporation of a 'resilience approach' to align with the Goulburn Broken Regional Catchment Strategy
- updated stream and wetland condition data
- identification of new roles and responsibilities in Natural Resource Management, such as establishment of the Victorian and Commonwealth Environmental Water Holders.

## Catchment condition – Waterways (since 1990)

The community's long-term vision for waterways is: 'Resilient waterways, vibrant communities. The waterway systems of the Goulburn Broken region are vibrant and resilient so that communities can enjoy the values and benefits they provide and contribute to their maintenance and improvement.'

### Catchment condition assessment part I: Progress in achieving resilient long-term benefits

There has been significant improvement in water quality and fish populations. Overall amenity has also increased due to significant improvements in streamside vegetation, in the face of increased recreational pressure in many locations.

#### Clean water

Like much of Australia, Goulburn Broken waterways are well within thresholds for most parameters listed under the EPA's State Environment Protection Policy (Waters of Victoria), and a watching brief (mainly for sudden events and negative long-term trends) is mostly appropriate.

Salinity contributions from the region comply with targets under MDBA processes.

#### Fish

The Goulburn Broken catchment has 21 of 46 native fish species in the Murray-Darling Basin. The preferred location for inland recreational fishing in Victoria is the Goulburn Broken catchment at 26 per cent, creating threats and opportunities for long-term resilience of native and non-native fish species.

Victorian Fisheries Authority surveys from 2017 to 2021 showed wide distribution of Murray cod and good survival rates from spawning; trout cod at five sites, with good numbers downstream of Lake Nagambie; and silver perch at seven sites, although in low numbers.

A trial to re-establish the threatened Southern Pygmy Perch (a six centimetre native fish) at McLarty's Lagoon (a private wetland complex on the Goulburn River floodplain north of Seymour) and Freshwater catfish in the lower Broken Creek commenced. The project is being implemented with the support of ARI, TLaWC, YYNAC, NCCMA and VFA. The project aims to reduce the risk of Southern Pygmy Perch and Freshwater Catfish extinction by re-establishing them in areas where they have become locally extinct.

#### Plants, animals and ecological communities

Social media apps are enabling an increase in citizen science, with data starting to help researchers more accurately determine the status of many species. Goulburn Broken CMA has an app that records frogs, fish, reptiles and birds of the catchment.

Seasonal herbaceous wetlands are mainly on agricultural land across the riverine plains of the Catchment and are critically endangered. Many have discrete characteristics that are often only visible after significant rainfall.

Alpine bogs and fens are in Taungurung Country, and are the subject of investigation because they remain at significant risk from a warming climate, fire, exotic weeds, grazing by non-native animals, and increasing tourism pressure.

## Living Murray Icon Sites (Barmah Forest) and Wetlands in the Directory of Important Wetlands of Australia

In the Barmah forest, River Red Gum health is recovering after declining significantly during the Millennium drought. Moira Grass marshlands are significantly depleted, estimated to be at five per cent of pre-river regulation levels. Since 2010, the cover and diversity of wetland plants has improved in response to delivery of water for the environment and natural flooding. Parks Victoria's Barmah Strategic Action Plan for the Protection of Floodplain Marsh and Yorta Yorta Nation Aboriginal Corporation's Joint Management Plan for Barmah National Park are now being implemented and include the control of feral herbivores. Three plant species listed as critical components of the Barmah Ramsar Site's ecological character continue to be actively monitored, with substantial increases in population sizes and distribution documented.

**Fish:** Stable populations of most native fish species, with silver perch possibly re-establishing in some areas and golden perch spawning. Trout cod have become more prevalent.

**Birds:** Delivery of water for the environment has increased opportunities for improving habitat and feeding and breeding for threatened and other waterbirds at several wetlands, including Gaynor and Reedy swamps. Knowledge is strengthening of Barmah's importance as the last stronghold in Victoria for eastern great egret and intermediate egret to nest and supporting 30 per cent of the estimated population of Australasian Bittern (another critical component of the Ramsar Site's ecological character).

**Other:** Evidence of successful breeding in a diversity of frogs and turtles has been obtained although crayfish recovery remains slow from hypoxic blackwater events following the Millennium drought. Fox impacts on turtles are declining because of improved understanding and management but will need ongoing management. Frog populations at Moodie Swamp, Reedy Swamp, Gaynor Swamp, Loch Garry and Kanyapella Basin were supported by environmental water deliveries and natural inflows. At Moodie Swamp the number of Rigid Water-milfoil (nationally threatened plant) populations and EPBC-listed Sloanes Froglet was recorded.

### Heritage Rivers

Natural, recreational, scenic, cultural and other values of heritage rivers are likely to have at least been maintained since formal declaration in 1992. They have been supported by being factored into works program priorities. Risks to Big River's values are likely to be low because of its remote location and benign land use. Over time many risks to Goulburn River values have been reduced because of reduced stock grazing pressure, delivery of water for the environment and improved irrigation and drainage management. However, over the recent years unseasonal delivery of Inter Valley Transfers have negatively impacted on the Lower Goulburn River.

### Healthy waterways

There has not likely to have been any significant long-term change in overall environmental values.

### High community value waterways

There have been significant onground improvements with social benefits in many reaches, although several waterway reaches with high social significance are not priorities under the Waterway Strategy's methodology.

## Catchment condition assessment part 2: critical attributes of waterway resilience

The resilience of waterway systems has increased significantly since 1990 because of actions such as:

- creation and use of reserves of water for the environment
- partnering with land managers to action onground works within and along streams and on floodplains
- environmentally sensitive changes in how public and private land is managed
- increased integration to achieve multiple benefits, including cultural values
- a step-change increase of community members involved in raising awareness and participating in onground management.

### Streamflows and wetland inundation

#### Dammed (regulated) streams

Water set aside and released for the environment has improved flows in regulated streams.

*Long-term objective: Between 2014 and 2022, manage water regimes for ecological outcomes in 13 wetlands and 17 stream reaches.*

Many of the Goulburn Broken catchment's rivers and wetlands were modified as the population grew and land use changed. In some rivers, up to half of the water that would have flowed naturally is removed each year for towns, irrigation and industry, and river flows that do occur are unseasonal. As a result, many waterways and wetlands that depend on the right amount of water at the right time are not able to function as they would naturally.

It is therefore necessary to actively release water into waterways and wetlands to support the plants, animals and functions that depend on them; these flows are called 'water for the environment' and they come from water in storages. Shared benefits of water for the environment include recreational activities like fishing, boating and birdwatching; sustained healthy Country for Traditional Owners and clean water for householders, farmers and food processors. Where possible, water for agriculture, industry and towns is released in a complementary manner and infrastructure is used to ensure rivers, wetlands and floodplains receive the right amount of water at the right time.

The Murray-Darling Basin Plan, adopted in 2012, aims to balance water needs of the environment and other users through the establishment of new volumes of water-use (known as sustainable diversion limits). Although we are in the early stages of learning how to best use water for the environment, evidence of increased resilience from its use includes improving native vegetation, water bird and frog breeding, and fish migration and spawning. Despite this, various pressures are resulting in unseasonal water being delivered down the Goulburn River for use beyond the Catchment, impacting the River's resilience.

Opportunities have increased for Traditional Owners involvement in waterway management, providing technical, cultural and environmental knowledge, and prioritise use of water for the environment.

Since 2008-09, almost 7,220 gigalitres of water has been delivered to wetlands and streams according to seasonal water plans (see table page 48 and bar chart on page 21). Goulburn Broken CMA continues to work with partners to identify opportunities for watering more priority wetlands.

During the unprecedented Millennium drought, water was provided to major wetlands and waterways, such as Reedy Swamp, Black Swamp, Moodie Swamp, Doctors Swamp, Goulburn River, Broken Creek and Barmah Forest, providing a refuge to the return of wetter times. Several streams experienced record floods since the Millennium drought ended. The resulting floodplain-to-river connection has helped the recovery of waterways, floodplains and wetlands and associated plants and animals.

**Undammed (unregulated) streams**

Establishment of sustainable diversion limits and improved management of licensed water-use extraction for agriculture and towns through local management plans has limited flow impacts in unregulated streams. Warm and dry (including climate change) conditions continue to threaten values in unregulated waterways with low and cease to flow events increasing.

Nearly ten years since the Millennium drought ended, researchers from the University of Melbourne have found that about one third of Victoria’s catchments still produce less flows than expected. This means that even though rainfall has improved compared with the Millennium drought, the amount of rainfall making it into these rivers is less than it would have been before this prolonged drought. (Ref VicWaCI-Fact-Sheet1.pdf (water.vic.gov.au)). This includes some catchments in the Goulburn Broken region, notably the Strathbogie Ranges.

**Streamside (riparian) vegetation**

*Long-term objective: Between 2014 and 2022, increase area of streamsid es (riparian zones) with stock managed to achieve ecological outcomes by 162 kilometres.*

The target is relatively low compared with significant progress made in the two decades preceding the 2014 Goulburn Broken Waterway Strategy update. In the eight years until 2020-21, 122 of the targeted 162 kilometres in priority waterway reaches has been achieved.

Landholders are contributing significantly more than the originally expected 20 metre width of streamside zones. A total of 930 hectares of streamside in priority reaches had a modified grazing regime in implementing the Waterway Strategy (259 per cent of the entire eight-year target of 359 hectares), and 499 hectares of non-priority reaches had stock opportunistically managed.

Since 1997, over 1,686 kilometres of fencing has been erected (protecting 12,109 hectares).

The establishment of the Broken Boosey State Park and other reserve areas associated with the Broken, Boosey and Nine Mile creeks, and the more recent establishment of the Lower Goulburn National Park, resulted in more passive use of these areas, less stock grazing pressure, and an overall improvement in the condition of streamside vegetation. Although illegal firewood collection appears to be prevalent.

Engineering works were often used to control erosion and other processes in waterways prior to 2012, but waterways are now managed to achieve appropriate rates of erosion,

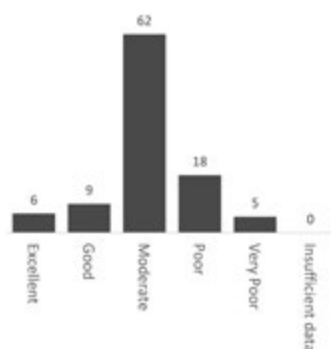
sedimentation and avulsion over the long term, consistent with natural processes, and as detailed in Policy 11.1 in the 2013 Victorian Waterway Management Strategy. This means that management of the river channel now focuses on maintaining and improving the bed, banks, instream habitat, riparian land and integrated catchment management through riparian management and restoration.

Significant onground works over the last 20 years has improved streamside vegetation on our priority waterways, supported by improved management of water for the environment, community support for waterways and various partnership arrangements as outlined in the community participation section.

In recent years, Goulburn Broken CMA has undertaken some analysis to assess the length of high value waterways protected from stock assess. See below for a current estimate.

Stream	Stream length (km)	as at 2021	
		Stock access managed (km)	% length stock access managed <sup>1</sup>
Broken River	189.9	114.2	60
Holland Creek	77.3	46.9	61
Ryans Creek	60.0	48.4	81
Broken Creek	234.8	190.7	82
Boosey Creek	99.6	69.6	71
Goulburn River	542.4	352.4	65
Seven Creeks	137.2	84.0	61
Hughes Creek	84.7	59.9	71
King Parrot Creek	62.9	46.6	74
Yea River	80.4	17.3	22
Acheron River	86.5	51.9	60
Taggerty River	14.7	14.7	100
Rubicon River	44.3	29.2	66
Howqua River	66.5	61.3	92
Delatite River	58.5	39.6	68

**Index of stream condition 2010**  
Goulburn Broken Basin  
Stream condition % length



## Water quality

*Long-term objective: Continue to meet water quality targets in stream reaches.*

(CMAs are working with DELWP to consider regional water quality target setting in the next round of Regional Waterways Strategies. In the meantime, targets around phosphorus load reduction focus efforts.)

In the 1996 water quality strategy, blue-green algal blooms were a key focus, and they were managed by reducing nutrient loads in waterways. Phosphorus was chosen as the most appropriate indicator of progress.

The Catchment goal of a 65 per cent reduction in total phosphorus exported from the catchment set in the 1996 water quality strategy is close to being realised, although this is probably in part due to low loads associated with low flows as much as nutrient management work within the Catchment.

Since the water quality strategy implementation began in 1996:

- wastewater treatment plants are no longer a major nutrient source in the Catchment
- the irrigation drainage nutrient contribution has reduced substantially
- the ratio of irrigation drain to dryland source nutrients has changed, such that dryland is now the major nutrient source (in 1996 the ratio of irrigation to dryland was 1.5, in 2016 it was 0.5)
- nutrient loads from intensive animal industries and urban stormwater are unlikely to have changed much.

There have been frequent low dissolved-oxygen and/or hypoxic blackwater events in recent years, which can result in the death of a range of aquatic biota and cause other significant environmental, social and economic impacts. Although hypoxic blackwater events can create problems, not all blackwater events are hypoxic.

Although the processes causing these events are reasonably well understood, they are often difficult to predict and mitigate because they are associated with intense and extensive short-term weather events. The changing climate is likely to increase the risk of low dissolved-oxygen and hypoxic blackwater events through increasing stream temperatures, low flow, and increasing intense rainfall events during warmer months.

Fires occur regularly in south eastern Australia and can instigate short to medium-term water quality issues. Again, as the climate changes, the impact of fires on water quality needs to be considered. Vast areas of the Catchment were severely burnt between 2006 and 2009 and most of the canopy along riparian zones were removed.

Cold water pollution from dam releases, such as Lake Eildon, can also be significant and needs to be factored into management for ecological outcomes and to meet community expectations.

Gradual increases in pH (becoming more alkaline) in the lower Goulburn River and Broken Creek have been observed in recent years. Current pH levels are still within or close to SEPP Environmental Quality Indicators and not thought to be of great current concern. The approach is to keep a watching brief.

## Fish passage and habitat

*Long-term objective: Between 2014 and 2022, maintain and increase instream habitat for native fish and other threatened species at 34 sites.*

Weirs and other instream structures like vehicle crossings, which were built post European settlement, made it impossible for fish to migrate along many of our priority waterways, significantly impacting on their capacity to breed, and reducing their access to available habitat, food and shelter. The removal or modification of barriers (by retrofitting fish ladders or fishways) to allow passage for native fish commenced in the 1990s. Most barriers to fish passage that are feasible to manage in Goulburn Broken catchment streams have now been removed or modified, and planning is underway to modify or remove the remaining high priority barriers, such as Gowangardie Weir.

Asset owners must now consider and address fish passage when building new or modifications to existing infrastructure, such as weirs, are planned. Some older fishways might need to have their fish-passage design improved.

Instream habitat, such as snags, are sometimes called the inland equivalent of coastal reefs. They provide habitat for native fish and other animals like turtles and native water rats. Snags have been removed from river systems within the Goulburn Broken catchment in the past for boating safety and navigation, and in the mistaken belief that it would reduce the risk of flooding. Clearing and inappropriate management of native vegetation along streams has also led to a decrease in large woody material introduced naturally into waterways. The removal and reduction in the number of snags has been identified as a major reason for the decline of native fish populations.

Statewide instream habitat mapping paints a grim picture of the current level of instream habitat in lowland streams (particularly the regulated Goulburn River and Broken Creek) compared to pre-European levels: approximately 50 per cent are classed as severely depleted (a greater than 80 per cent decrease), more than 45 per cent are highly depleted (with a 60 to 80 per cent decrease) and around five per cent are moderately depleted (with a 40 to 59 per cent decrease).

Current resnagging is restoring native fish habitat: native fish populations are responding strongly. However, resnagging on its own is unlikely to be the sole driver of native fish recovery. Better management of water for the environment and streamside zones by restricting stock access will result in a constant natural supply of snags in future.

Several large projects funded through the Recreational Fishing Licence (RFL) Grants Scheme and other recent projects have focused on the introduction of large wood and boulders in the mid and lower Goulburn River, Broken Creek, Hughes Creek, Seven Creeks, Holland Creek, Howqua River, and Tahbilk Lagoon: 3,017 large snags and rock have been placed in these waterways from 2011 until 2020-21.

## Managing risks from works and activities on waterways

When people undertake works and activities on or adjacent to waterways, which includes rivers, streams and wetlands, there is a risk they may cause environmental damage. The potentially significant risks to waterway health of new works or activities in, under or over designated waterways are managed through By-Law No. 3 Waterways Protection 2014. Works require a permit from Goulburn Broken CMA.

### Index of stream condition

In Victoria, the Index of Stream Condition and the Index of Wetland Condition measure condition including changed hydrology, water quality, form (such as width, depth and meander wavelength), vegetation health, and species diversity. These indices provide part of the information for decisions; they are measured against a pre- European settlement baseline, and not what communities desire now.

In 2010, 15 per cent of stream length in the Goulburn and Broken basins were in good or excellent condition (nine and six per cent respectively; see bar chart page 41). The overall condition had not significantly changed since 2004.

Assessments of Goulburn Broken catchment wetlands undertaken since 2009 indicate that most are in good or moderate condition (38 and 40 per cent respectively), with the remaining in excellent (six per cent), poor (15 per cent) and very poor condition (less than two per cent). The results also indicate that wetlands on public land are generally in better condition than those on private land.

### Community capacity to be involved and act onground

Includes regional government agency and stakeholder leadership, partnerships, and tools to change long-term directions and implement short-term onground changes.

While Goulburn Broken CMA has a leading role in waterway and wetlands health, many critical decisions and most works affecting waterways and wetlands are undertaken by parties other than Goulburn Broken CMA.

Waterway and wetlands resilience depends on strong government agency and broader community partnerships, underpinned by government investment. The extent and proportion of government investment needed varies for different aspects of waterway and wetland management, including different stages of maturity in capturing opportunities to manage risks. Since the early 1990s, Goulburn Broken CMA (and its predecessors) has actively promoted participation in agency-community partnerships to achieve better and more integrated management.

The Goulburn Broken catchment's communities have demonstrated the ability to self-organise and adapt to build resilience. Since 2000, responses to extreme changes that are relevant to waterway and wetlands resilience include innovative drought and fruit-industry employment and fire-recovery programs, the \$1 billion Foodbowl Initiative, and the Farm Water Program. Many community individuals who have been involved in Goulburn Broken CMA partnership forums are now active advocates for integrated management.

A step-change in integrated catchment management was achieved with the advent of Victorian CMAs in 1997, when these regionally-based organisations became responsible for managing land and waterways. Floodplain management responsibilities were also shifted from Melbourne to the CMAs in 1997.

Goulburn Broken CMA's evolving strategic approaches are listed in various documents, including updates and evaluations of the Regional Catchment Strategy and sub-strategies.

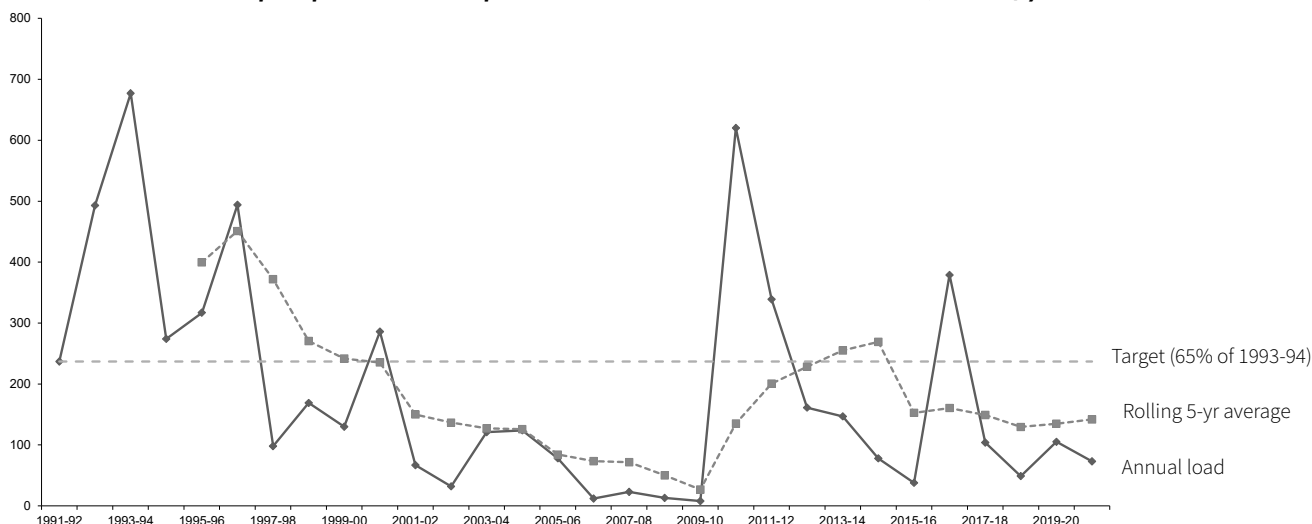
### Landholder grants uptake and ongoing participation

Landholders who implemented streamside works between 1993 and 2016 with Goulburn Broken CMA are generally very satisfied with outcomes achieved and the support provided:

- those who believe 'their' stream frontage is in good or excellent condition increased from 19 to 69 per cent
- 97 per cent would recommend undertaking works to another landholder
- the average score on a scale of 1 to 7, where 1 is poor and 7 is excellent, for effectiveness of works was 6; advice/technical support, funding, works coordinated by the CMA, and communication throughout the project was 5.9; follow-up contact post-project 5.

Most landholders are voluntarily maintaining sites following initial works through the initial grant funding, such as weed control (85 per cent) and fence repair (65 per cent).

**Total phosphorus loads exported from Goulburn Broken catchment, tonnes/year**



## Long-term strategy implementation progress and 2021-22 performance

This section assesses progress in implementing Goulburn Broken Waterway Strategy 2014-2022 (GBWS) actions. While listed individually, in practice these actions are part of an integrated set working together to deliver the long-term goals of the strategy. Progress in implementing the strategy is shown against the critical attributes for long-term resilience that evolved since the strategy was developed. Implementation of many waterway strategy actions have been used to inform progress, with links to critical attributes being formalised over time.

Long-term strategy implementation progress	2021-22 performance
<p>Progress in building resilience via the five critical waterway attributes varies significantly, largely reflecting the maturity of interventions, budget constraints, or uncertain knowledge when setting targets.</p> <p>Actions have been achieved in accordance with funds provided each year.</p> <p>The trend of a move away from hard (and expensive) engineering approaches continues, towards soft engineering, involving working more with the changes, focusing on the long-term benefits desired and the most cost-efficient way of achieving them.</p> <p>Reviews of Goulburn Broken Waterway Strategies (in 2013, 2018 and 2022) indicate that the Goulburn Broken CMA's waterways program has responded well to unprecedented fires, floods and drought by securing funding and implementing recovery actions.</p>	<p>Actions to build resilience via the five critical attributes specific to waterways were undertaken to the level funded, in partnership with the community and agencies.</p> <p>Actions included fencing, revegetation, pest plant and animal control, improving instream woody habitat, water for the environment delivery, monitoring, employment, engagement and education.</p> <p>Improvements in strategic approaches were gained through the renewal of the RCS that will be incorporated in the renewal of the Regional Waterway Strategy, due to start in 2023.</p> <p>Delivery of the existing Strathbogie Streams flagship project continues as well as the early stages of a new flagship project on the mid Goulburn River where the approach is currently being scope with TLaWC.</p>
Streamflows and wetland inundation	
Undammed (unregulated) streams	
<p>Goulburn Broken CMA has completed a number of technical studies (environmental flow determinations and streamflow management plans) on unregulated streams, including the Yea River, King Parrot Creek and Seven Creeks. They have sought to determine how available water can be sustainably shared between environmental and consumptive demands.</p> <p>In unregulated streams, water for the environment cannot be released to manage risks, such as when Macquarie perch and trout cod were dying in the Seven Creeks due to low flow in March 2016.</p>	<p>The condition and extent of aquatic habitat was monitored along the Hughes, Seven, Holland and King Parrot Creeks during summer. The monitoring results were used to determine the need for management interventions to protect water quality and aquatic fauna. With favourable conditions (cooler and wetter), no management interventions were considered necessary.</p> <p>Goulburn Broken CMA continued to participate as a member of the Goulburn Broken Integrated Water Management Forum. This included participation in the practitioner's group and priority projects.</p>
Dammed (regulated) streams	
<p>Since the early 2000s, with the assistance of partner organisations and input from the regional community, Goulburn Broken CMA has played a key role in delivering and managing water for the environment to maintain and enhance ecological values of rivers, floodplains and wetlands.</p> <p>Flow in the Goulburn River results from different delivery sources and methods. It can come from releases from Lake Eildon and Goulburn Weir, or from catchment run-off. Releases from Lake Eildon can supply water for human consumption, irrigation and environment needs.</p> <p>Water for the environment is extremely important in very dry periods, such as July to October 2016. The table on page 48 shows the annual volume of environmental water delivered within the Goulburn Broken catchment in the past 11 years.</p> <p>In recent years, Goulburn Broken CMA has managed the delivery of environmental water to the Goulburn River, Broken River, Broken Creek, Barmah Forest and a number of priority wetlands. This has improved water quality, promoted the growth and establishment of native vegetation, promoted and supported waterbird and native fish breeding, provided drought refuge for native fauna, provided habitat for native fish, frogs and water bugs, and reduced the growth of nuisance aquatic plants.</p>	<p>Over 900,000 megalitres of environmental water was delivered to support water quality, fish, macroinvertebrates, water birds, platypus, turtles and native vegetation in the Goulburn River, Broken River, Broken Creek, Barmah Forest, Kanyapella Basin, Gaynor Swamp Black Swamp, Moodie Swamp, Doctors Swamp, Kinnairds Wetland, Loch Garry and, Horseshoe Lagoon (in partnership with Taungurung Land and Water Council) (see tables on page 48 and 49).</p> <p>Significant environmental water deliveries and outcomes included:</p> <ul style="list-style-type: none"> <li>• Environmental water was used to supplement unregulated flows over winter and spring to deliver high variables flows including a number of fresh events. These deposited seed-rich sediment on the banks of the lower Goulburn River. This process is important in promoting the growth and establishment of bank stabilising vegetation. Bank vegetation also provides habitat for native fish and macroinvertebrates. A late spring fresh successfully stimulated Golden perch spawning.</li> <li>• Freshes were delivered down the lower Goulburn River and the lower Broken Creek in autumn to stimulate native fish to move into them from the Murray River</li> </ul>

Long-term strategy implementation progress	2021-22 performance
Streamflows and wetland inundation (continued)	
Dammed (regulated) streams (continued)	
<p>The Victorian Government, with support from Goulburn Broken CMA and its partners, has or is increasing water for the environment availability by saving water in supply and delivery for farming through projects such as the Farm Water Program and the GMW Connections Project.</p>	<p>Significant environmental water deliveries and outcomes included (continued):</p> <ul style="list-style-type: none"> <li>• A mid Goulburn River high flow event to assess the flow rates needed to inundate wetlands and anabranches along the mid Goulburn River was delivered.</li> <li>• Environmental water was delivered down the lower and upper Broken Creeks in January and February to mitigate the impacts of blackwater generated by high rainfall.</li> <li>• Barmah Forest received several natural overbank flow events between July and December. The flow events had peak discharges between 20,000-47,000 ML/day. Environmental water was delivered between the peaks to help maintain the depth and extent of flooding. Moira grass responded well to the flood events, and they also stimulated bird breeding (cormorants, darters, ibis, spoon bills and egrets) at a number of different locations across the forest.</li> <li>• Approximately 400 ML was delivered to Doctors Swamp in April which partially filled the wetland. Local rainfall runoff in May and June increased the extent and depth of inundation. The water stimulated the growth of wetland plants and the River Red Gum canopy which was defoliated by insects in summer.</li> <li>• Gaynor Swamp received 1000 megalitres which stimulated flowering of EPBC-listed Spiny Lignum (<i>Duma horrida</i>).</li> </ul> <p>Water for the environment was delivered in accordance with VEW processes, with assistance and cooperation of partners. Most priority watering actions were achieved at all sites.</p> <p>219,174 megalitres of the environmental water delivered down the Goulburn River and lower Broken Creek continued to the Murray River to benefit downstream water quality, recreation, wetlands and rivers.</p>
Streamside (riparian) vegetation	
<p>Streamside vegetation implementation programs are at a late stage of maturity after two decades of onground works and significant land tenure changes towards more passive uses.</p> <p>Since 1997, over 1,686 kilometres of fences have been erected and approximately 12,109 hectares of riparian land have been protected and/or enhanced.</p>	<p>Works in this area were restricted due to a changeover period of funding and early-stage navigation of the Taungurung Recognition and Settlement agreement. Close to 120 hectares of streamside vegetation and improvement activities were undertaken, which includes vegetation planting, riparian protection and weed control works.</p> <p>In addition, funding was provided to undertake a recreational values project on the Jamieson River at Jamieson which is being further scoped with a steering committee.</p>
Water quality	
<p>The Goulburn Broken Water Quality Strategy 1996-2016 was reviewed with key contributing partner organisations. The review indicated good progress toward targets and that no major change in direction was needed. The strategic focus on water quality for the region is now covered in the Goulburn Broken Waterway Strategy as one of the key components of waterway health. Institutional arrangements to manage water quality threats continue through several regional participant forums.</p> <p>There has been a change in focus to invest for the public benefits of streamside vegetation works first, rather than instream soil erosion works. In the absence of significant floods, recent trends are expected to continue.</p>	<p>The Water Quality Forum continued monitoring the water quality conditions.</p> <p>Heavy rainfall early in 2022 led to hypoxic blackwater events in the upper Broken Creek and a separate event originating in the Boosey Creek and the receiving waters of the lower Broken Creek.</p>

Long-term strategy implementation progress	2021-22 performance
<p>Fish passage and habitat</p> <p>Goulburn Broken CMA has focused on resnagging waterways to improve instream habitat. Approximately 3,017 instream habitat structures, including large wood and rock, have been added to priority waterways since 2011 (until the end of 2020-21), including the Goulburn River, Broken Creek, Hughes Creek, Seven Creeks, Holland Creek, Howqua River and Tahbilk Lagoon.</p>	<p>Instream habitat works occurred on Hughes Creek, with placement of snags to extend connectivity with previous site works. A trial also commenced to improve Macquarie Perch habitat by testing how well instream vegetation (sedge species) colonises and stabilises sand beds in a reach of Hughes Creek.</p> <p>There are increasing opportunities to repurpose timber removed from development for environmental benefit. There is also continuing support, including financial, from recreational fishing groups to undertake habitat improvement works.</p> <p>A total of 20 Freshwater catfish (<i>Tandanus tandanus</i>) were released into the Broken Creek in May as part of a project to re-establish a self-sustaining population. There are plans to release more Freshwater catfish into the Creek over the next couple of years which will improve the project's chances of success. The Freshwater catfish were salvaged from irrigation channels near Mildura. The project was funded by the Murray-Darling Basin Authority, coordinated by Goulburn Broken CMA and implemented with the support of OzFish Unlimited, Victorian Fisheries Authority, Lower Murray Water, North Central Catchment Management Authority, Arthur Rylah Institute and Austral research.</p> <p>Approximately 600 Southern Pygmy Perch of various age classes were released into a private wetland on the Goulburn River floodplain near Seymour as part of a project to establish a self-sustaining population. The project was funded by the Murray-Darling Basin Authority and implemented by Goulburn Broken, Arthur Rylah Institute and Taungurung Land and Waters Council. Ongoing works to improve the habitat of the wetland is planned for 2022-23 and the release of more Southern Pygmy Perch.</p>

### Community capacity to be involved and act onground – long-term strategy implementation

Although local and regional agency and broader community partnerships are strengthening, the capacity to manage waterways for regional priorities is becoming challenging because of often competing priorities from other parts of the southern-connected Murray-Darling Basin.

Specific activities that build community capacity to influence and lead decision-making and act onground are detailed within each annual report, including this one.

This year proved difficult for community action and partnering due to ongoing COVID-19 restrictions and infections.

#### **Landholder grants uptake and ongoing participation**

Landholders who implemented streamside works between 1993 and 2016 through the Goulburn Broken CMA are generally very satisfied with the support provided and outcomes, with most voluntarily maintaining sites (Glassford 2017).

#### **Traditional Owners**

Traditional Owner participation in onground works and environmental water delivery continues to grow strongly.

Traditional Owners are also more involved in policy development and setting priorities, although significantly more efforts are needed to build ongoing and consistent involvement, which requires more resources (especially at the TO end). (See also page 36.)

#### **Environmental water advisory groups**

Goulburn Broken CMA has established three community and partner agency stakeholder advisory groups to advise on plans for using water for the environment. The Wetland Management Group was established in 2008 and the Goulburn and the Broken Environmental Water Advisory Groups were established in 2012.

A survey of 38 (18 community and 20 partner agency) current and former members of the groups, as part of a 2017 review, indicated general satisfaction with group input into developing annual water plans (also known as seasonal watering proposals).



### **General community understanding and participation (waterways)**

In the last few years, several individuals and community stakeholder groups have become advocates for waterway and wetlands management activities and have led the way by actively participating. Ninety per cent of Goulburn Broken catchment residents surveyed are aware of Goulburn Broken CMA's role in 'managing waterways', according to a biennial statewide survey. When asked which Natural Resource Management issues were of the most importance, without prompting with suggestions, 'water quality' and 'drought' were both leading issues, with large increases from 2012, while 'protecting wetlands', 'sustainability', and 'salinity management' also had increased ratings. Other surveys such as 'My Victorian Waterways' and University of Canberra's 'Regional wellbeing survey' also inform decisions.

### **Community capacity to be involved and act onground in 2021-22**

The Broken and Goulburn Environmental Water Advisory Groups and the Goulburn Broken Wetland Advisory Group continued to meet, including via video meetings, and guide water for the environment planning, use, monitoring and complementary works. The groups are comprised of agency, stakeholder and community representatives.

Activities to improve the health of Barmah-Millewa Forest included the coordination of a Barmah Forest Ramsar Site Coordinating Committee (which guides the implementation of site management plan priorities) and a Barmah Millewa operational advisory group (which guides environmental water management in the Barmah and Millewa Forests). Annual monitoring of the threatened Superb Parrot population is carried out by the local Superb Parrot Group.

### **Monitoring, research and development, and adapting management in 2021-22**

Goulburn Broken CMA maintains close relationships with research organisations, government investors, and sister-implementation agencies across the country to ensure onground and other actions are implemented according to the best science and appropriate standards. Goulburn Broken CMA participates in various statewide working groups involving policy, implementation and monitoring.

Activities in this area included:

- monitoring of threatened species continued and included monitoring of Macquarie perch in the Holland, King Parrot, Seven and Hughes Creeks
- the Lower Goulburn River FLOW MER program continued to monitor the impacts of environmental water delivery and conducted a community forum in June.

The Living Murray program (TLM) continued to fund a range of activities to improve the health of Barmah-Millewa Forest including monitoring the ecological response of birds, fish and vegetation to delivery of water for the environment.

In addition to the TLM program, the Barmah Forest Ramsar Site program undertakes research and monitoring to assist management better understand and improve the status of critical Components, Processes and Services that have been identified as defining the Site's ecological character.

### **Goulburn Broken CMA and DELWP (waterways) partnership**

Goulburn Broken CMA waterway staff view their partnership with DELWP's waterway staff very favourably.

They cite the value of clear understanding by CMA and DELWP waterway staff of their complementary roles and responsibilities, nurtured by ongoing commitment to long-term relationships for a common cause. This is despite often significant and frequent demands on both parties.

### **Goulburn Broken CMA and regional agency partnerships**

Regular CMA survey results indicate that partnerships are meeting or exceeding expectations in all areas. Most of these partnerships have direct applicability to river and wetland health outcomes.

### **Implementation of priority actions**

Priority actions listed in the Goulburn Broken Waterway Strategy 2014-2022 are mostly being implemented on schedule.

The twelfth Floodplain Ecology Course was successfully held at Barmah during May, managed by the Goulburn Murray Landcare Network and Goulburn Broken CMA, with participants attending the five-day course funded by the Australian Government's Regional Landcare Program.

RiverConnect, which promotes the Goulburn and Broken rivers as the heart and soul of the Shepparton-Mooroopna community, continued to be supported. Significantly a review of the Strategic Plan has begun.

Engagement efforts were hampered this year due to COVID-19 restrictions and operating arrangements.

The Australian Government funded program called Flow-Monitoring Evaluation and Research monitored native fish, macroinvertebrates, vegetation, geomorphology and ecosystem metabolism responses to environmental water management in the lower Goulburn River. The program is an extension of the five-year Goulburn River Long Term Intervention Monitoring Program which finished in June 2019 with increased focus on research to fill knowledge gaps.

Vegetation, waterbird and frog responses to the delivery of environmental water and natural inflows were monitored at the following sites: Reedy Swamp, Moodie Swamp, Black Swamp, Doctors Swamp, Gaynor Swamp, Horseshoe Lagoon, Kinnairds Wetland, Kanyapella Basin, Moodie Swamp and Loch Garry. The monitoring was undertaken by DELWP as part of a statewide wetland monitoring program (Wetland Monitoring and Assessment Program - WetMAP) and or Goulburn Broken CMA staff.

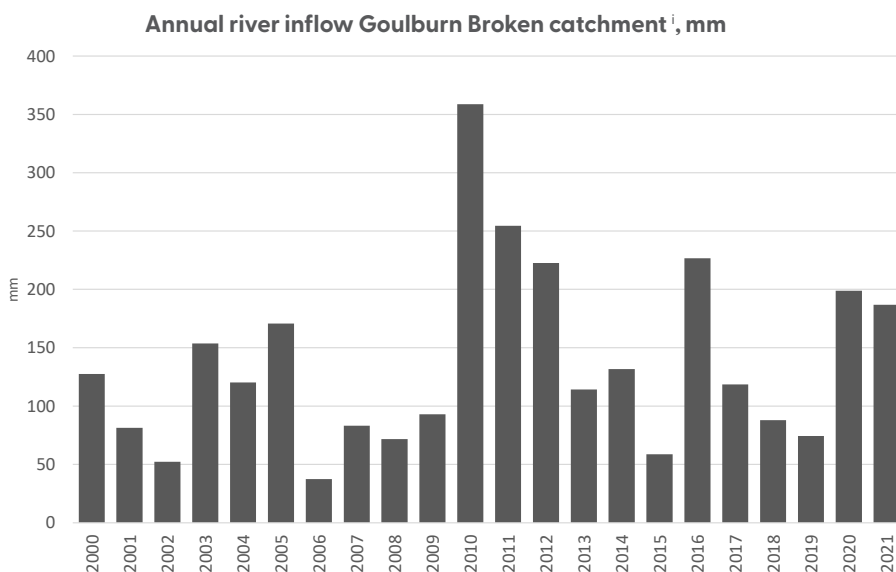
Ongoing data collection of water quality parameters continued through the North East Water Quality monitoring partnership.

Passive Integrated Transcoder tag readers at seven fishway locations continued to be operated to assist in developing a better undertaking of fish movement within the region and beyond.

## Environmental water use

Wetland or stream	Volume, ML <sup>i</sup>										
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Barmah-Millewa Forest (Vic and NSW) <sup>ii</sup>	428,000	2,959	363,086	0	437,395	254,188	414,010	172,789	361,000	377,603	410,626
Black Swamp	0	0	50	0	80	0	0	80	65	0	80
Lower Broken Creek	10,366	41,230	38,593	34,306	30,319	36,192	41,408	27,633	35,777	33,694	69,915
Upper Broken Creek	0	51	0	387	0	0	0	0	597	1,235 <sup>iii</sup>	1,247
Broken River	0	0	0	0	0	0	1000	250	258 <sup>iii</sup>	23 <sup>iii</sup>	510
Doctors Swamp	0	0	0	0	594	0	0	0	67	0	427
Goulburn River (downstream of Goulburn Weir)	195,110	255,427	312,349	304,125	228,252	193,272	354,832	247,268	373,256	214,625	361,340
Goulburn River (downstream of Lake Eildon)											86,088
Kinnairds Wetland	0	0	179	0	696	0	0	386	259	0	195
Moodie Swamp	0	0	121	500	500	0	500	0	0	0	1,006
Reedy Swamp	0	0	0	0	475	0	0	500	500	0	0
Gaynor Swamp	0	0	0	0	0	0	500	600	0	994	901
Loch Garry	0	0	0	0	0	0	0	0	500	0	980
Horseshoe Lagoon	0	0	0	0	0	0	0	0	121	17	52
Kanyapella Basin	0	0	0	0	0	0	0	0	0	500	1,000
<b>TOTALS</b>	<b>633,476</b>	<b>299,667</b>	<b>714,378</b>	<b>339,318</b>	<b>698,311</b>	<b>483,652</b>	<b>812,250</b>	<b>449,506</b>	<b>772,400</b>	<b>628,691</b>	<b>934,367</b>

- i. Final volumes might vary slightly and are reconciled following publication of this annual report.
- ii. Generally, the water is equally shared between the Barmah and Millewa Forests. Greater than 80 per cent of the water delivered to the Barmah-Millewa Forest returns to the Murray River.
- iii. In accordance with the Broken System Bulk Entitlement, between May and December 2019 the Goulburn Broken Catchment Management Authority and Goulburn-Murray Water agreed to reduce the passing flow requirement below Lake Nillahcootie from 30 ML/day or natural to 15 ML/day or natural and banked inflows above 15 ML/day. This water was used to maintain minimum baseflow requirements in the Broken River and Upper Broken Creek.



- i. Total surface and subsurface runoff into the river(s), estimated by the OzWALD model data fusion system  
Source: Centre for Water and Landscape Dynamics, Australian National University. [www.ausenv.online](http://www.ausenv.online)

## Environmental water used during 2021-22

System	Quantity, ML	Source
<b>Water used WITHIN the Goulburn Broken catchment</b>		
Goulburn River (downstream of the Goulburn Weir)	315,513	Commonwealth Environmental Water – Goulburn River System
	45,827	The Living Murray Water – Goulburn River System
	0	Victorian Environmental Water – Goulburn River System
Goulburn River (downstream of Lake Eildon)	60,838	Commonwealth Environmental Water – Goulburn River System
	1,341	The Living Murray Water – Goulburn River System
	23,909	Victorian Environmental Water – Goulburn River System
Lower Broken Creek	35,331	Commonwealth Environmental Water – Goulburn River System
	0	Victorian Environmental Water – Goulburn River System
	0	Goulburn River Water Quality Allowance – Goulburn River System
	34,584	Commonwealth Environmental Water – Murray River System
	0	Victorian Environmental Water – Murray River System
Barmah-Millewa Forest	107,944	Commonwealth Environmental Water (CEW) – Victoria
	4,476	The Living Murray allocation (TLM) – Victoria
	95,786	Barmah-Millewa Forest Environmental Water Allocation – Victoria and NSW
	20,000	Victorian Environmental Water – Murray River System
	50,000	River Murray Increased Flows (RMIF) – Victoria and NSW
	132,420	NSW (CEW, TLM and NSW Environmental Water)
Upper Broken Creek	644	Victorian Environmental Water – Broken River System
	603	Commonwealth Environmental Water – Broken River System
Broken River	255	Victorian Environmental Water – Broken River System
	255	Commonwealth Environmental Water – Broken River System
Black Swamp (Nine Mile Creek)	80	Victorian Environmental Water – Goulburn and Murray River Systems
Kinnairds Wetland (Lower Broken Creek)	195	Victorian Environmental Water – Goulburn and Murray River Systems
Reedy Swamp (Lower Goulburn River)	0	Victorian Environmental Water – Goulburn River System
Doctors Swamp (Lower Goulburn River)	427	Victorian Environmental Water – Goulburn River System
Loch Garry (Lower Goulburn River)	980	Victorian Environmental Water – Goulburn River System
Horseshoe Lagoon (Mid Goulburn River)	52	Victorian Environmental Water – Goulburn River System
Kanyapella Basin (Lower Goulburn River)	1,000	Victorian Environmental Water – Goulburn River System
Moodie Swamp (Upper Broken Creek)	503	Victorian Environmental Water – Broken River System
	503	Commonwealth Environmental Water – Broken River System
Gaynor Swamp (Corop)	901	Victorian Environmental Water – Goulburn River System
<b>Water used DOWNSTREAM that benefited waterways in the Goulburn Broken catchment</b>		
Murray River	6,275	Inter-Valley Transfers (Goulburn River) i
	38,233	The Living Murray allocation (Goulburn River)
	0	Inter-Valley Transfers (lower Broken Creek) i
	532,510	Lower Goulburn River Unregulated Flows and Operational Releases
	19,638	Lower Broken Creek Unregulated Flows and Operational Releases

i. 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.

## Waterways onground Actions 2019-20, 2020-21 and 2021-22

Action	From funds received through Corporate Plan					
	Achieved <sup>i</sup>			Target	% achieved	
	2019-20	2020-21	2021-22			
<b>Stock grazing action</b>						
Fence riparian land (= wetland + stream/river remnant below)	ha	120	153	94	2	4,712
Fence wetland remnant	ha	8	0	4	2	200
Fence stream/river remnant <sup>ii</sup>	ha	112	153	90	-	
Fence stream/river remnant	km	33	36	19	10	186
Off-stream watering	no.	22	32	10	7	143
<b>Nutrient-rich and turbid water and suspended solids action</b>						
Stormwater management projects <sup>iii</sup>	no.	-	-	-	-	
<b>Instream and near-stream erosion action</b>						
Bank protection actions	km	-	-	-	-	
Instream & tributary erosion controlled	km	-	-	-	-	
<b>Changed flow-pattern action</b>						
Environmental water use <sup>iv</sup>	ML	772,400	628,691	934,367	-	
<b>Weed invasion action</b>						
Weeds – aquatic weeds controlled (managed)	km	28	8	-	-	
<b>Habitat loss management</b>						
Rock ramp fishway	no.	-	-	-	-	
Fish barrier removal	no.	-	-	-	-	
Instream habitat <sup>v</sup>	no.	259	20	0	14	0
<b>Surface water action <sup>vi</sup></b>						
Drain - primary built <sup>vii</sup>	km	17	55	-	-	
Drain - community built	km	-	-	-	-	
Farm reuse systems installed <sup>viii</sup>	no.	-	-	-	-	
High flow drain diversion - high nutrient water removed <sup>ix</sup>	ML	-	-	-	-	
Irrigation systems - improved <sup>x</sup>	ha	7,790	4,947	719	-	

- i. Achievements include those from investment areas: Waterways and complementary investment areas (Sustainable irrigation, Land, and Biodiversity). Outputs delivered through each fund source are available from the Goulburn Broken CMA.
- ii. Area figure supplied by River and Wetland Health Program 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. Output included for the first time in 2015-16 as 'in-stream woody habitat - snags'. Updated to 'in-stream habitat' in 2017-18 to include other habitat structures undertaken in 2017-18 such as groynes and rock seeding.
- vi. Surface water management enables the removal of excess rainfall runoff from irrigated lands, alleviating soil salinity. As part of an overall management plan for nutrients, nutrient loads are managed by collecting and reusing water from drains. Nutrient loads are monitored against the Goulburn Broken Water Quality Strategy nutrient target for drains.
- vii. Fencing and laneways are relocated along primary drains to control stock. Drains are also hydromulched and seeded to provide vegetative cover on bare batters.
- viii. Reuse dams allow for the collection of high nutrient runoff and reirrigation, reducing the water and nutrient loads leaving the farm.
- ix. High flow diversion. None completed because of no demand and previous dry conditions.
- x. Assumptions: From 2014-15, area improved = laser levelling (which itself includes an assumption based on whole farm plan area - see footnote iv) + pressurised irrigation systems (micro or drip + sprinkler).

### What's next?

Implementation of the Goulburn Broken Waterway Strategy (GBWS) 2014-2022, in partnership with regional agencies and the community, will continue although renewal of the strategy is expected to begin in 2024. The recently completed final review and its actions will drive the focus of effort until its renewal. Strategic priorities that emerged from the review are :

#### 1 Give effect to priorities in First Nations Country Plans and strengthen Traditional Owners influence in all stages of waterway management.

This requires continued improvements in relationships, understanding, acknowledgement and inclusion of Traditional Owner knowledge, culture and values. Traditional Owners' NRM-related plans and strategies will provide some direction. This strategic priority aligns with the 6-year priority in the Goulburn Broken RCS 2021-27.

The priority is expected to be reviewed as part of the 2024 GBWS renewal.

- 2 *Make it easier for community members to influence strategic directions by framing high-level goals in a way that helps communicate links between long-term intent, annual actions, and progress.***

Goulburn Broken CMA will contribute to the 2023 renewal of the Victorian Waterway Management Strategy (VWMS), which includes the review of regional waterway management and associated renewal of guidance for regional waterway strategies. Goulburn Broken CMA will advocate for community influence in strategy development and implementation. West Gippsland CMA's program logic might be a useful model to support.

- 3 *Maximise the environmental value of water from all sources, particularly water for the environment, and provide complementary cultural, social and economic benefits, where possible.***

Decisions on sharing and managing water need to factor in the impact of climate change on wetlands and all waterways, both regulated and unregulated.

GBWS renewal will be an opportunity to engage widely with the community and strengthen and broaden relationships. This will enable waterway management to be informed by current values and interests and to be improved by greater stakeholder ownership of strategy delivery.

This will also include contributing to regional processes and beyond that impact on environmental water management, such as the VWMS, the Murray-Darling Basin Plan and Sustainable Water Strategy renewal.

- 4 *Refine streamside vegetation programs as the need for new fencing nears its end-point on major streams.***

Operational priorities are:

- 1 *From the GBWS 2014-2022 reviews, identify relevant actions for considering in 2023 when renewing the GBWS.***
- 2 *During GBWS renewal, consider increased targeting in stream-frontage works.***

This relates to strategic priority 4 and also aligns with requirements of the Environmental Contributions Tranche 5 (EC5) process.

- 3 *Increase collaboration in the management of Barmah.***

Site management plans are likely to sit outside the GBWS and will therefore rely on processes and relationships between those with a role in the management of Barmah.

- 4 *Continue to use the analogy of rivers being just like roads, needing funding for both maintenance and improvement.***
- 5 *During GBWS renewal, consider the role of environmental water alongside other tools to meet objectives.***

The Strathbogie streams flagship waterways project is proposed to continue to focus on the Seven Creeks and Hughes Creek, and other streams flowing from the Strathbogie Ranges will be also targeted through the riparian works program. Priority waterways including the Goulburn River, are also proposed to be targeted.

Opportunities for multiple uses of environmental water will continue to be explored with neighbouring CMAs, the Victorian and Commonwealth Environmental Water Holders, the Murray-Darling Basin Authority, Traditional Owners and the community.

Seasonal watering proposals for 2022-23 aim to use water for the environment to protect and improve the ecological values of waterways for positive ecological achievement outcomes by:

- providing flows in the lower Broken Creek to provide native fish passage, increase native fish habitat during the migration and breeding seasons, and manage threats to native fish from low dissolved oxygen levels or excessive Azolla growth
- providing low flows in the Broken River and upper Broken Creek to provide habitat for native fish, macroinvertebrates, instream vegetation and platypus
- providing low flows and freshes in the lower Goulburn River to provide habitat and recruitment opportunities for native fish, macroinvertebrates and native vegetation, and support geomorphic processes and nutrient cycling
- provide low flows in the mid Goulburn River to provide habitat for instream vegetation, macroinvertebrates and native fish.
- promoting the growth and establishment of Moira grass and supporting colonial waterbird breeding in Barmah Forest
- promoting the health of native vegetation communities and supporting waterbird and frog breeding at Horseshoe Lagoon, Gaynor Swamp, Kanyapella Basin, Kinnairds Wetland and Black Swamp.

Goulburn Broken CMA will continue to support implementation of the Flow-Monitoring Evaluation and Research Program in the Goulburn River and the development and implementation of the Victorian river and wetland monitoring and assessment programs (VEFMAP and WetMAP).

Opportunities to better manage water transfers down the lower Goulburn River will continue to be investigated and implemented further with DELWP and partners through the implementation of the final Goulburn to Murray Trade Review recommendations.

Goulburn Broken CMA will work with Traditional Owners, DELWP and other partners to support the delivery of the Water is Life: Traditional Owner Access to Water Roadmap, which aims to strengthen the role of Traditional Owners in water planning and management.

Goulburn Broken CMA will continue to support Stage 1A of the Victorian Constraints Measures Program. The program aims to achieve more efficient and effective use of environmental water in the Goulburn and Murray Rivers by reducing physical and operational delivery constraints.

Activities for the years 2022-23 to 2024-25 will be implemented with funding from the Environmental Contributions Levy tranche 5.

Opportunities and obligations from the Taungurung Recognition and Settlement Agreement will be identified and enacted.

## Investment area – Floodplain management

Compiled by Guy Tierney and Joel Leister.

### Long-term and annual scorecard <sup>i</sup>

2021-22 performance	On target
---------------------	-----------

Catchment condition <sup>ii</sup>	1990	2022	Long-term risk
			<b>MEDIUM</b>

There have been significant floodplain management improvements across the catchment, with further improvements currently underway.

As more infrastructure occurs within floodplains, flood impacts potentially increase. However through floodplain management tools, the annual average damages do not unduly increase and community preparedness and education of flood risk improves.

The influence of climate change on rainfall patterns, and therefore the flood behaviour, is being observed across the catchment. Current studies are including allowances for these changes in the project outputs.

Resilience assessment					Long-term strategic implementation <sup>v</sup>		
Critical attribute affecting long-term catchment health <sup>iii</sup>	Contribution to system function <sup>iii</sup>		Risk to system thresholds/tipping point <sup>iv</sup>			Start	Stage
	1990	2022	Trend 2019-22	Long-term (10+ years)			
				Current support <sup>vi</sup>	No support <sup>vi</sup>		
Flood impact				<b>MEDIUM</b>	<b>VERY HIGH</b>	2002	Late

Certainty of rating is High. Flood intelligence translated into accessible community flood intelligence portal, municipal flood emergency plans and planning schemes, local flood guides. Total flood warning systems provide access improved timeliness of warnings. Flood mitigation implementation programs in detailed design phase. Application of sound floodplain management principles applied to new land-use and development applications.

- Appendix 1 describes the analytical framework. Ratings legend is inside front cover.
- Critical attribute contributions and risks are major considerations in rating catchment condition, along with indicators on higher level outcomes from managing these critical attributes, such as viability of threatened species and gross value of agricultural productivity. Long-term risk assumes ongoing support at current levels.
- System is Floodplain; benchmark for contribution is the desired level, as defined (formally or informally) in 2022.
- Risk that system will not be in desired state of resilience in long-term because of level of critical attribute contribution. Risks can be from biophysical threats, such as climate, or other, such as community's adaptive capacity. Desired state might be other than current state.
- Long-term strategies vary significantly in formality: 'start' approximates when holistic, integrated approach to influencing critical attribute began.
- Support includes government funding and community (including individual) in-kind and financial investment for onground works and helping communities and individuals adapt.

### Government investment, \$000

2019-20	2020-21	2021-22	2022-23 <sup>i</sup>
836	1,025	868	836

- Forecast is based on the Corporate Plan 2022-23.

### Strategic references

- Victorian Floodplain Management Strategy (2016)
- Goulburn Broken Regional Floodplain Management Strategy 2018-2028
- Planning and Environment Act 1987*
- Subdivision Act 1988*
- Building Regulations 2018*
- Water Act 1989*
- Minerals and Resources (Sustainable Development) Act 1990*
- Environment Protection Act 1970*

### Background

The amount of damage a flood causes depends on its size. The annual average damage (AAD) is what would be expected in a flood-prone area, considering fluctuations over many decades. Goulburn Broken CMA inherited the highest AAD of all Victorian CMAs outside Melbourne Water's area of responsibility for floodplain management (Victoria Flood Management Strategy 1998).

Floodplain management functions are delegated to Goulburn Broken CMA (*Water Act 1989* Section 202) and include advising local councils, DELWP's Secretary, and the community about flooding and controls on development. Without floodplain management, flood impacts potentially increase if infrastructure, buildings and assets are placed within floodplains without floodplain planning at a statutory and strategic level.

Engineering techniques such as hydrology (the study of rainfall and runoff) and hydraulics (the applied science of water movement across floodplains, rivers, streams and stormwater networks) assist understanding of flood behaviour and impacts from floods on urban and rural communities. These techniques also help understanding of environmental flow regimes of waterway and wetland systems.

Flood studies provide a sound understanding on flood behaviour (flood extent, elevation, depth, velocity and hazard) and flood risk (likelihood and its associated consequences) that are paramount to inform potential flood mitigation and management options. Such options include structural solutions, e.g. levees, retardation basins, and floodways, and non-structural solutions (flood warning, awareness and education programs, emergency management arrangements and land-use planning controls).

### Catchment condition - Floodplain management (since 1990)

*Long-term objectives: High-level objectives have been reset and 10-year prioritised actions have been developed with stakeholders following the 2018 release of the regional floodplain management strategy. Goulburn Broken CMA's objectives relate to reducing annual average damages (\$), social trauma and property loss, and improving natural environment flooding patterns.*

The vision of the Goulburn Broken Regional Floodplain Management Strategy (RFMS; 2018-2028) is: 'Through partnerships, improve the flood resilience of the catchment's people, infrastructure, land, water and biodiversity'.

Implementation of the RFMS is on schedule, building on significant floodplain management improvements in many

geographic areas since 1990. AAD and social trauma have decreased significantly through improved flood-intelligence sharing (community flood intelligence portal and emergency management), flood mitigation and land-use planning.

### Long-term strategy implementation

Four cross cutting RFMS programs deliver the vision, aiming to:

- **Build community resilience:** encourage communities to responsibly manage their own risks (as part of the Total Flood Warning System program) by improving accessibility to fit for purpose flood intelligence for the community (community portal and local flood guides).
- **Reduce legacy flood risk:** minimise flood-hazard exposure and consequences (part of all four programs – flood mitigation works, total flood warning systems (TFWS), land-use planning, and municipal flood emergency plans (MFEP)).
- **Avoid future flood risk:** do not make things worse (part of the Land-use Planning program).
- **Manage residual flood risk:** by integrated flood-intelligence sharing with emergency services, interpretation at incident control (part of the MFEP and TFWS programs) and flood insurance (part of the Total Flood Warning System program).

Implementation program	Long-term progress
Flood mitigation works	<p>Using local, Victorian and Australian government grants, authorities are implementing recommendations of several flood studies and floodplain management plans, including structural and non-structural works. It is accepted that tasks completed result in reduced flooding impacts on the built environment and its peoples. Functional and detailed designs are progressing for flood mitigation works at three urban centres (Numurkah, Cobram and Violet Town).</p> <p>Implementation is opportunistic through Australian and Victorian Government incentives, such as the Risk and Resilience Grants Program. The Katandra West and Winton Flood Scoping Studies were successful in obtaining funding through the Risk and Resilience Grants Program. The Numurkah Northern Flood Levee was successful in obtaining a \$2.383 million grant through the National Flood Mitigation Infrastructure Program to construct a levee along the northern side of Broken Creek.</p>
Total flood warning systems	<p>Recently significant augmentation of the rain and stream gauge network has been implemented for the Broken-Boosey Catchment and flood warning services are now provided to Nathalia, with a limited flood warning service for Numurkah (awaiting further testing for finalisation).</p> <p>Since 2000, other flood prediction services are in place for Benalla, Euroa, Shepparton-Mooroopna, and Seymour. Local Flood Guides have been prepared for many communities in the Goulburn Broken catchment. The Goulburn Broken Community Flood Intelligence Portal was expanded to include at-risk communities in Seymour. Further urban centres are expected next financial year including Yea and Shepparton East.</p>
Land-use planning	<p>A total of 57 studies have been completed since 1997 and six are underway (Goulburn Broken Rivers, Sunday Creek Catchment, Jamieson, Boosey and Upper Broken Creeks and Dabyminga Creek). All local government authorities have flood zone and overlay controls within the Goulburn Broken catchment with most having incorporated decision criterion with respective planning schemes. As new studies are finalised opportunities to incorporate flood mapping into planning schemes will be implemented. Currently, a group amendment is being explored across five municipal councils to include updated and new flood overlay controls at 11 urban centres.</p>
Municipal flood emergency plans	<p>Since 2009-10, there have been continued gains and support in the statewide FloodZoom (flood intelligence system) to assist with emergency management (and land-use planning), and significant gains with the standard statewide format of Municipal Flood Emergency Plans.</p>

## 2021-22 performance

### Community capacity, engagement and involvement

Community engagement is an integral part of floodplain management through flood studies and floodplain management plans and their implementation, assisted by several government agencies. Goulburn Broken CMA currently manages and hosts the Flood Victoria website on behalf of the Victorian Government.

The table below provides a summary of the studies and implementation plans progressed for 2021-22. All studies are carried out under a partnership approach with

local government, Victorian and Australian government agencies and local communities. Implementation of the recommendations is a shared responsibility. Civil works such as town levee construction generally rest with local government.

A key initiative is capacity building to implement strategic work and action arising from both the Victorian and Regional Floodplain Management Strategies.

### Flood studies and implementation plans for 2021-22

Project name	Lead agency	Status
Flood Mitigation Work Program: Priority actions 22 (9 high, 8 medium, 5 low). Status: 2 completed, 4 ongoing.		
Cobram East Flood Mitigation Functional Design	Moira Shire Council	High priority. Several mitigation options have been developed and presented. A community reference group is guiding this project.
Numurkah Functional Design for Flood Mitigation Works.	Moira Shire Council	High Priority. Funding obtained via the National Flood Mitigation Infrastructure Program to fund the construction of the Northern Town Levee (Stage 1).
Seymour Town Levee Implementation Plan	Mitchell Shire Council	High priority. In June 2020, the Mitchell Shire Council resolved to cease the Seymour Town Levee Project.
Euroa Supplementary Mitigation Works	Strathbogie Shire Council	House protection complete south of Castle Creek.
Total Flood Warning Systems: Priority actions 42 (12 high, 17 medium, 5 low). Status: 5 completed, 12 ongoing.		
Numurkah	Moira Shire Council	High priority. Following the completion of augmentation of rain and stream gauges, the Bureau of Meteorology has developed preliminary flood prediction services to Numurkah, which will be refined with future hydraulic flood analysis and actual floods.
Granite Creeks Regional Flood Mapping Project (Hume Freeway to the Goulburn River)	DELWP	Low priority. Study has been completed. Local Flood Guides to be prepared. Ongoing.
Shepparton East Overland Flood Study	Goulburn Broken CMA	High priority. Study completed. Local Flood Guide to be prepared. Ongoing.
Flood warning improvements for Benalla	Benalla Rural City Council	Council is now a partner of the Goulburn Broken Community Flood Intelligence Portal with information for Benalla now accessible.
Yea River Flood Intelligence Project Study	Goulburn Broken CMA	Medium priority. Revised Flood Class Levels defined – currently under review. Murrindindi Shire agreed to become a partner of the Goulburn Broken Community Flood Intelligence Portal for 2022-23.
Whiteheads Creek Floodplain Management Study	Mitchell Shire Council	High priority. Study Complete.
Flood Study of the Goulburn and Broken Rivers	Goulburn Broken CMA	High priority. Hydraulic calibration report delivered in May 2021 by consultant. Ongoing.
Sunday Creek Catchment Flood Intelligence and Mapping Study	Mitchell Shire Council	Medium priority. Study commissioned in October 2018. Ongoing.
Boosey and Upper Broken Creeks Flood Study	Moira Shire Council	High-Medium priority. Project commenced in 2019. Ongoing.
Kyabram Flood Study	Campaspe Shire Council	High Priority. Project Completed.
Jamieson Flood Study	Goulburn Broken CMA	Low Priority. Study commenced in 2019. Ongoing.
Howqua River Flood Study	Goulburn Broken CMA	Low Priority. Study commenced in 2020. Ongoing.
Dabyminga Creek Flood Study	Goulburn Broken CMA	Low Priority. Study commenced in 2021. Ongoing.
Euroa Flood Intelligence and Mapping Study	Strathbogie Shire Council	High priority. Study completed. Local flood guide to be developed. Ongoing. Now part of the Goulburn Broken Community Flood Intelligence Portal.



Project name	Lead agency	Status
Land-use Planning: Priority actions 68 (28 high, 18 medium, 21 low, 1 very low). Status: 7 completed, 13 ongoing.		
Nagambie Flood Study	Strathbogie Shire Council	High priority (completed). Flood zone and overlays completed. Council will amend its Planning Scheme as part of Group Amendment with Campaspe, Greater Shepparton, Mitchell and Murrindindi Councils.
Euroa Flood Intelligence and Flood Mapping Study	Strathbogie Shire Council	High priority (completed). Flood zone and overlays completed. Council will amend its Planning Scheme as part of Group Amendment with Campaspe, Greater Shepparton, Mitchell and Murrindindi Councils.
Violet Town Floodplain Management Study	Strathbogie Shire Council	High priority (completed). Flood zone and overlays completed. Council will amend its Planning Scheme as part of Group Amendment with Campaspe, Greater Shepparton, Mitchell and Murrindindi Councils.
Kilmore Flood Mapping and Intelligence Study	Mitchell Shire Council	High priority (completed). Flood zone and overlays completed. Council will amend its Planning Scheme as part of Group Amendment with Campaspe, Greater Shepparton, Murrindindi and Strathbogie Councils.
Kyabram Flood Study	Campaspe Shire Council	High priority. Study Complete. Council will amend its Planning Scheme as part of Group Amendment with Greater Shepparton, Mitchell, Murrindindi and Strathbogie Councils
Flowerdale Flood Zone and Overlays	Murrindindi Shire Council	High priority (completed). Flood overlays completed in late 2017. Council will amend its Planning Scheme as part of Group Amendment with Campaspe, Greater Shepparton, Mitchell and Strathbogie Councils.
Rural flood mapping (Eildon & Nillahcootie catchments)	Goulburn Broken CMA	Low priority. Final report and hydrologic deliverables completed 2015-16. Study Complete
Hydrology of the Acheron catchment (Marysville, Buxton and Taggerty)	Goulburn Broken CMA	Medium-High priority. Hydrology and hydraulic modelling completed. Flood overlays to be completed for Planning Scheme Amendment. Ongoing.
Shepparton East Overland Flood Study	Goulburn Broken CMA	High priority. Study Complete. Council will amend its Planning Scheme as part of Group Amendment with Campaspe, Mitchell, Murrindindi and Strathbogie Councils.
Shepparton-Mooroopna Flood Mapping and Intelligence Study	Greater Shepparton City Council	High priority. Study Complete. Council will amend its Planning Scheme as part of Group Amendment with Campaspe, Mitchell, Murrindindi and Strathbogie Councils.
Whiteheads Creek Floodplain Management Plan	Mitchell Shire Council	High priority. Study Complete. Council will amend its Planning Scheme as part of Group Amendment with Campaspe, Greater Shepparton, Murrindindi and Strathbogie Councils.
Flood Study of the Goulburn and Broken Rivers	Goulburn Broken CMA	Medium priority. Study in progress. Flood overlays to be prepared once study is complete. Ongoing.
Sunday Creek Catchment Flood Intelligence and Mapping Study	Mitchell Shire Council	High priority. Study in progress. Flood overlays to be prepared once study is complete. Ongoing.
Granite Creeks Regional Flood Mapping Project (Hume Freeway to the Goulburn River)	DELWP	Low priority. Study has been completed. Flood Overlays to be prepared. Ongoing.
Upper Broken and Boosey Creeks Flood Study	Moira Shire Council	Medium Priority. Study in progress. Flood overlays to be prepared once study is complete. Ongoing.
Winton Flood Scoping Study	Benalla Rural City Council	Medium Priority. Study in progress.
Katandra West Flood Scoping Study	Greater Shepparton City Council	High Priority. Study in progress.

Project name	Lead agency	Status
Municipal Flood Emergency Plans: Priority actions 69 (20 high, 25 medium, 23 low, 1 very low). Status: 9 completed, 9 ongoing.		
Granite Creeks Regional Flood Mapping Project (Hume Freeway to the Goulburn River)	DELWP	Medium priority. MFEP update required following completion of study. Ongoing.
Yea River Flood Intelligence Project Study	Goulburn Broken CMA	High priority. MFEP requires a revision based on new gauge. Ongoing.
Whiteheads Creek Floodplain Management Study	Mitchell Shire Council	High priority. See TFWS for commentary. MFEP required an update following completion of the report. Ongoing.
Flood Study of the Goulburn and Broken Rivers	Goulburn Broken CMA	Low priority. This is across five LGAs where each MFEP will require revisions. Ongoing.
Sunday Creek Catchment Flood Intelligence and Mapping Study	Mitchell Shire Council	High priority MFEP update required following completion of study. Ongoing.
Upper Broken and Boosey Creeks Flood Study	Moira Shire Council	Medium priority. MFEP update required following completion of study. Ongoing.
Kyabram Flood Study	Campaspe Shire Council	Medium priority. MFEP update required following completion of study. Ongoing.
Nagambie Flood Study	Strathbogie Shire Council	High Priority. Flood study has been completed. Flood intelligence to be included in Strathbogie MFEP. Ongoing.
Violet Town Flood Study	Strathbogie Shire Council	High Priority. Flood study has been completed. Flood intelligence to be included in Strathbogie MFEP. Ongoing.
Whole of region: Priority actions 10 (6 High, 4 Medium). Status: 1 completed, 1 ongoing.		
Community flood information portal (HydroNET)	Goulburn Broken CMA	High priority. First stage complete (launched in September 2020). Goulburn Broken CMA in discussions to expand to other communities across the catchment. Murrindindi Shire has joined the partnership in June 2022.
Undertake exercising MFEPs	VICSES	High priority. Annually.

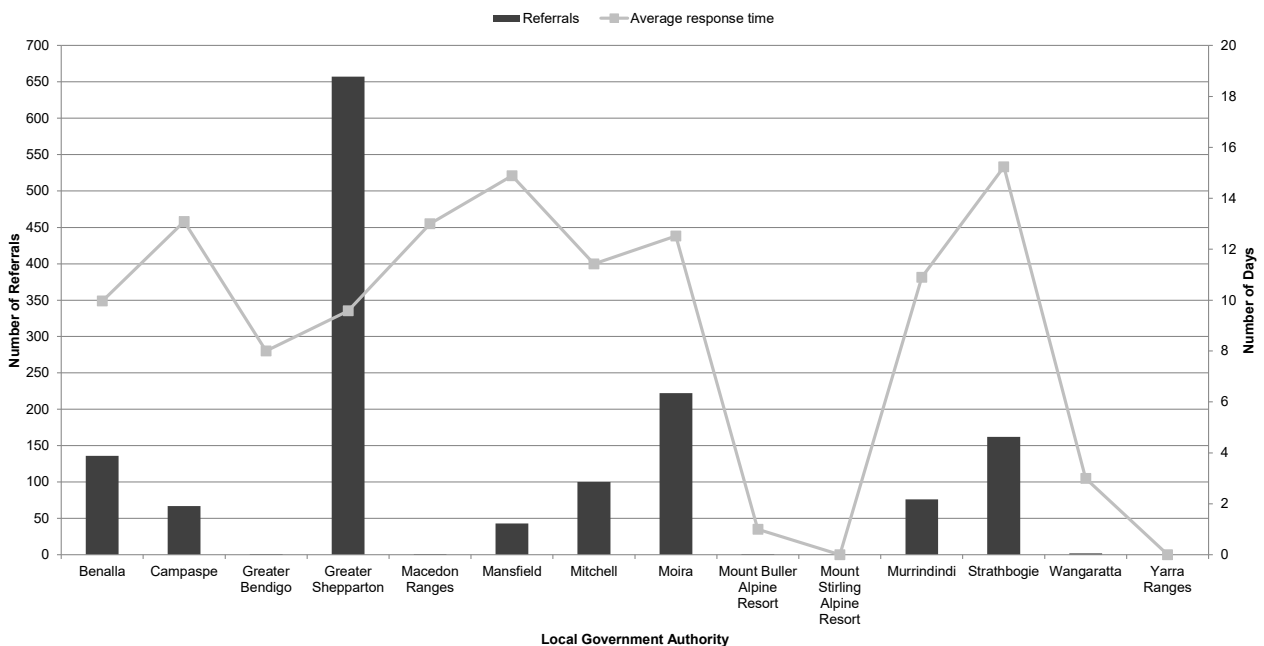
### Statutory Use and Development Planning

A breakdown of the number of floodplain referrals received from each local government area (under a range of Acts) and the average response time is shown in the graph below. Statutory targets under the *Water Act* are shown on page 107. In 2021-22, ninety-nine per cent of responses were within the prescribed period with an average response time of 11.2 days.

Works and activities on a waterway, including its surrounds, require a permit from Goulburn Broken CMA to ensure risks to river health and stability are not compromised

### Works on waterways permits

There have been 82 permits issued for works and activities on waterways within an average response time of 20.0 days.



## Works and operations

### Floodplain management actions 2021-22

Action	From funds received		
	Achieved <sup>i</sup>	% of responses	
<b>Integrating knowledge into planning</b>			
Land Use Development Direct Applications (LUD)	no.	438	29.8
Planning Scheme Amendment Direct Application (PSA)	no.	5	0.3
Flood Information Request Direct Applications (FIR)	no.	90	6.1
Other Direct Applications (DAOTH)	no.	1	0.1
Land Use and Development [Formal] (S 55)	no.	467	31.8
Land Use and Development [Advice only] (S 52)	no.	95	6.5
Certification of Subdivision (S 8)	no.	85	5.8
Subdivision and Certification (S 55 & S 8)	no.	5	0.3
Notice of Planning Scheme Amendment (S 19)	no.	11	0.7
Victorian Building Regulations [VBRs] (R 153)	no.	233	15.9
Other LGA Applications (LGAOTH)	no.	33	2.2
Query & Notification of Unauthorised Work	no.	0	0.0
Statement of Compliance (S 8)	no.	0	0.0
Work Plan [Minerals and Energy] (S 77)	no.	1	0.1
Other DELWP Application	no.	2	0.1
Works Approval (WA)	no.	1	0.1
VCAT & PPV	no.	1	0.1
<b>Total</b>		<b>1,468</b>	
Victorian Civil Administration Tribunal and Planning Panels Victoria hearings	days	0	
<b>Floodplain implementation</b>			
Gazettal of Flood Amendment	no.	0	
Urban flood studies and management plans	no.	1	
Regional flood studies and management plans	no.	0	
<b>Creating awareness</b>			
Flood education and awareness program	no.	1	

i. Most actions are performed reactively so no targets are set annually, however there are KPIs relating to regulatory waterway/water functions (see page 107).

### What's next?

- Expand the Goulburn Broken Community Flood Intelligence Portal for those most at-risk communities.
- Local government planning scheme amendments to incorporate new mapping and performance-based assessment criteria will continue.
- Work with partners to apply for funding opportunities for new flood studies, work and initiatives within the Goulburn Broken catchment.
- Preparation of a four-year work plan and a monitoring, evaluation, reporting and improvement plan to assist with the implementation of the Goulburn Broken Regional Floodplain Management Strategy.
- Implementation of the Victorian and Regional Floodplain Management Strategies.

## Investment area - Biodiversity

Compiled by Jenny Wilson, Steve Wilson, Janice Mentiplay-Smith, Jim Begley, Gaye Sutherland, Tony Kubeil, Karen Brisbane, Kerstie Lee and Bek Caldwell.

### Long-term and annual scorecard<sup>i</sup>

2021-22 performance	Exceeded target		
Catchment condition <sup>ii</sup>	1990	2022	Long-term risk
			<b>VERY HIGH</b>

Native vegetation improvement actions, such as revegetation and stock control, have improved 1.1 per cent (16,986 ha) of the Catchment's private land in the past 10 years. After accounting for losses during this time, native vegetation extent has increased by the order of 0.3 per cent (4,500 ha), which is not a sufficient scale for all native species to survive.

Current threats, such as clearing (including illegal firewood collection), invasive pest plants and animals, and fire management, are exacerbated by climate change and have a compounding effect on past large-scale habitat loss and degradation. Paddock trees remain vulnerable.

Good climatic conditions across the Catchment has seen increased native flowering and seeding events, attracting increased numbers of species such as flying foxes and driven the movement of species such as superb parrot, beyond their normal range. Also, it appears climate change impacts have seen local high-to-low country migratory species such as pied currawong and king parrot spending more time in lowland habitats, possibly creating competition for resources. These good climatic conditions can also result in higher pest plant numbers having a negative impact on biodiversity.

The scale of change in areas managed for conservation is not sufficient. Thresholds have been breached and many flora and fauna ecosystems are in decline.

Urbanisation across the Catchment is a continued risk to the Catchment's biodiversity.

Increased awareness in environmental stewardship.

Resilience assessment						Long-term strategic implementation <sup>v</sup>	
Critical attribute affecting long-term catchment health	Contribution to system function <sup>iii</sup>		Risk to system thresholds/tipping point <sup>iv</sup>			Start	Stage
	1990	2022	Trend 2019-22	Long-term (10+ years)			
				Current support <sup>vi</sup>	No support <sup>vi</sup>		
Native vegetation extent				<b>VERY HIGH</b>	<b>VERY HIGH</b>	1997	Escalated response <sup>vii</sup>
Native vegetation quality				<b>VERY HIGH</b>	<b>VERY HIGH</b>	2003	Escalated response <sup>vii</sup>

Certainty of rating is Medium. Certainty that biodiversity information about 'very high' risk is very high. Certainty around native vegetation extent is medium (includes many assumptions). Certainty around native vegetation quality is very low (quantitative method in first year of study).

- i. Appendix 1 describes the analytical framework. Ratings legend is inside front cover.
- ii. Critical attribute contributions and risks are major considerations in rating catchment condition, along with indicators on higher level outcomes from managing these critical attributes, such as viability of threatened species and gross value of agricultural productivity. Long-term risk assumes ongoing support at current levels.
- iii. System is Biodiversity; benchmark for contribution is the desired level, as defined (formally or informally) in 2022.
- iv. Risk that system will not be in desired state of resilience in long term because of level of critical attribute contribution. Risks can be from biophysical threats, such as climate, or other, such as community's adaptive capacity. Desired state might be other than current state.
- v. Long-term strategies vary significantly in formality: 'start' approximates when holistic, integrated approach to influencing critical attribute began.
- vi. Support includes government funding and community (including individual) in-kind and financial investment for onground works and helping communities and individuals adapt.
- vii. 'Escalated response' recognises that the situation has shifted so significantly that difficult and sensitive questions about transformation and transitioning must be considered.

### Government investment, \$000

2019-20	2020-21	2021-22	2022-23 <sup>i</sup>
2,689	2,876	2,838	2,756

- i. Forecast is based on the Corporate Plan 2022-23.

### Strategic references

Investment in the Catchment's biodiversity is guided by the Biodiversity Strategy for the Goulburn Broken Catchment 2016-2021 and other regional, Victorian (e.g. Biodiversity 2037) and national policies and strategies (see Appendix 5).

### Background

Biodiversity is all the living flora, fauna and fungi, their genetic diversity and ecosystems of which they form part. Biodiversity has direct benefits for people, such as; cultural connections to country, ecosystem services (e.g. water purification, productive soils, and pollination) and aesthetically pleasing landscapes, in which to live and enjoy nature.

Biodiversity is integral to the functioning of all social-ecological systems (SESS) and is therefore considered in

all aspects of natural resource management. However, to provide focus and clarity for planning and reporting, such as in this Annual Report, Goulburn Broken CMA has separated biodiversity from other biophysical features, such as land and waterways.

Since its inception in 1997, Goulburn Broken CMA has been delivering biodiversity benefits and refining its long-term approach. Biodiversity strategies were evaluated and updated in 2000, 2004, 2010 and 2016, and is currently being reviewed to align with the Regional Catchment Strategy (RCS) and the associated biodiversity theme paper.

## Catchment condition – Biodiversity (since 1990)

Many ecosystems, plant and animal communities, and species are threatened with extinction, which is reflected in their National and State conservation status. Goulburn Broken CMA aims to achieve more resilient ecosystems, with efforts focused on increasing the extent and quality of habitat to create viable and adapting populations of all native species, including threatened species. The vision of the Biodiversity Strategy is:

**Highly valued, resilient and adaptive ecosystems supporting healthy native biodiversity.**

**Long-term objectives are:**

**By 2030:**

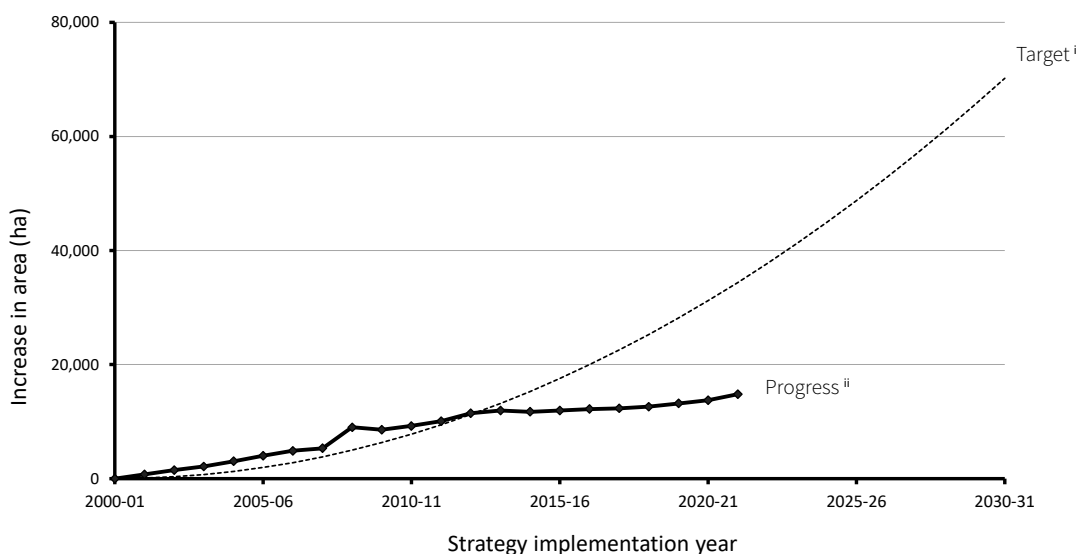
- Increase the extent of native vegetation in fragmented landscapes by 70,000 hectares.
- Improve the quality of 90 per cent of existing habitat by 10 per cent.
- Increase the population viability of 20 flagship species.

The change in extent of native vegetation is relatively easy to measure (with assumptions). This is an important indicator of progressing towards the vision, and it is identified as a critical attribute for system function by various scientists (at least 10 per cent extent minimum, preferably > 30 per cent). Progression in the long-term objectives for ‘habitat quality’ and ‘species’ population viability’ is much more difficult to measure. Therefore, extent is currently the major indicator of catchment condition. However, to improve our understanding of progress, we continue to work with scientists to understand changes in vegetation quality and species’ viability. Our understanding of whether we are creating resilient landscapes and viable populations of species is limited.

The trend in change of native vegetation extent is significantly below target (see graph below). The amount of revegetation possible to increase extent on private land is currently restricted by funding and not by the desire of communities or individual landholders to revegetate.

Climate change effects, such as the increased frequency and intensity of fire, sporadic and intense rainfall events, and drought and heat waves, are likely to create losses that are not easily measured. Species are likely to continue to become extinct with little understanding of how to best intervene, or without enough funding to reverse declines. Other factors to consider given likely near-future extinctions in the catchment include: the continued decline in threatened species as the ‘extinction debt’ from past clearing is realised; competition from pest species; habitat loss through, for example, logs and live trees used for firewood and ‘cleaning up’ by landholders; and the fragmentation effect of clearing vegetation (permitted and illegal), which results in the inability of flora and fauna to move through landscapes, increasing the risk of extinction through subsequent loss of sub-populations.

**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 (EVC) 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.
- 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 and includes an ongoing loss due to fire suppression activities. Detailed explanation of these assumptions can be found in the Goulburn Broken CMA’s Biodiversity Monitoring Action Plan upon request.

## Long-term strategy implementation progress and 2021-22 performance

The Biodiversity Strategy’s initiatives and actions, which are aligned with Australian and Victorian government strategies and priorities, provide ways to increase biodiversity conservation and progress towards targets. Goulburn Broken CMA attracts funds from diverse sources to implement the Biodiversity Strategy, by demonstrating links between project proposals and catchment-scale strategies in biodiversity-focused and multiple-themed projects. While the strategy focuses more on terrestrial biodiversity, waterways and wetlands are also critical parts of biodiversity, and these are described in the Waterways section (page 38).

Long-term strategy implementation progress	2021-22 performance
Biodiversity Program	
Strategic direction 1: Adapting to change	
<p>Natural resource management policy and socioeconomic drivers are changing rapidly, providing significant threats and opportunities for biodiversity conservation.</p> <p>The Biodiversity team continues to adapt to changes in a variety of ways by:</p> <ul style="list-style-type: none"> <li>— Responding to and influencing strategies of all CMA programs and other Natural Resource Management agencies.</li> <li>— Adapting a resilience approach to strategic planning and project delivery.</li> <li>— Improving understanding of and responding to, relationships between social and economic factors in biodiversity conservation.</li> </ul>	<p>The Goulburn Broken Biodiversity Strategy 2016-2021 is being implemented. The next iteration is being planned.</p> <p>We continue to adopt resilience thinking, with a focus on responding to climate change. Projects deliver on both the Australia’s Strategy for Nature 2019-2030 and Protecting Victoria’s Environment - Biodiversity Plan 2037.</p> <p>Staff adapted to ongoing changes due to COVID-19 throughout this reporting period. Despite COVID-19, we continued to deliver on all projects, and adapting to changed conditions such as holding meetings remotely, increasing use of social media, online workshops and ensuring partners and service delivery agents continued to be kept informed and engaged.</p> <p>Goulburn Broken CMA were the Victorian CMA representative on the Victorian Environment Forum ‘Scientific Sub-Committee’ for the first half of the year. Another Victorian CMA representative has now taken over this role on behalf of all CMAs.</p> <p>Goulburn Broken CMA continue as a representative on the Victorian CMA Biodiversity Network Meeting and the CMA Biodiversity Managers Forum, to advocate on behalf of CMAs and share learnings and opportunities.</p> <p>Goulburn Broken CMA continue as a representative on the Warby Ovens National Park Advisory Committee, that is developing a plan for the Park as part of its Green List status, on behalf of the Goulburn Broken and North East CMAs.</p> <p>Goulburn Broken CMA provided several submissions and technical input via meetings and formal responses to strategies and programs such as; the Victorian Koala Strategy, Threatened Species Action Planning, National Soil Action Plan, the Victorian proposed Bushbank program, and continue to advocate for enhanced seed services in partnership with the Goulburn Broken Indigenous Seedbank and the Euroa Arboretum.</p> <p>Goulburn Broken CMA presented as a keynote speaker at the 13th Australian Plant Conservation Conference (APCC) in Albury, in partnership with Murray Local Land Services. Goulburn Broken CMA and Euroa Seedbank staff visited the Royal Botanic Gardens Seedbank to collaborate and seek broader seedbank expertise in delivering native seed priorities and techniques.</p>

Long-term strategy implementation progress	2021-22 performance
<p>Biodiversity strategic direction 2: Nurturing partnerships</p> <p>The Biodiversity team continues to focus on building and nurturing partnerships with agencies, community networks and groups, Traditional Owners and individuals.</p> <p>Partnerships are growing, which is reflected in the development and delivery of partnership projects.</p>	<p>We continue to work with a diverse range of partners to provide opportunities for collaboration, cross-promotion of projects, and information-sharing, through symposia, media, and community engagement.</p> <p><b>Key Partners include:</b></p> <p><b>Taungurung Land and Waters Council (TLaWC) and Yorta Yorta Nation Aboriginal Corporation (YYNAC):</b> Goulburn Broken CMA continued to explore and implement opportunities to increase Traditional Owner involvement in our work, including project planning and service delivery on country. Partnership opportunities are developed through formal and informal meetings.</p> <p>Goulburn Broken CMA continued to facilitate the Indigenous Consultation Forums, including with YYNAC and TLaWC, with a focus this year on the renewal of the RCS. Four Taungurung and four Yorta Yorta Consultation Forums were held over the past 12 months. We have also developed an internal Cultural Learning Guide and continue to report on the activities under the Goulburn Broken CMA Reconciliation Action Plan.</p> <p>Goulburn Broken CMA collaborated with both Registered Aboriginal Corporations to carry out onground works on country, through Victorian and Australian government funded projects, including:</p> <ul style="list-style-type: none"> <li>— TLaWC - Mountain Pygmy Possum and Linking Landscapes projects.</li> <li>— YYNAC - Linking Landscapes, Ribbons of Blue and Sashes of Green and Barmah Ramsar projects.</li> </ul> <p><b>Department of Environment, Land, Water and Planning (DELWP):</b> Goulburn Broken CMA worked with DELWP through a variety of ways, including implementation of the Ribbons of Blue and Sashes of Green project (DELWP Biodiversity Response Planning) which was extended to June 2022; collaborating with DELWP compliance officers, to provide information on native vegetation clearing regulations, planted native vegetation exemptions, ecological thinning requests and other planning processes.</p> <p><b>Parks Victoria:</b> Joint project delivery included: Goat control in Heathcote - Graytown National park and surrounding public land areas (Victorian funded Biodiversity Response Planning); pest plant and animal control in Barmah National Park and Grey Box Woodland Reserves (Linking Landscapes).</p> <p><b>Australian Government:</b> Goulburn Broken CMA delivered Australian Government funded projects (Regional Land Partnerships (RLP)), developed monitoring protocols for the next round of RLP, and provided feedback on the Threatened Species Strategy.</p> <p><b>Mount Buller Mount Stirling Resort Management:</b> Goulburn Broken CMA worked with TLaWC and Resort Management for effective delivery of the project Mending Mountains for Pygmy Possum.</p> <p><b>Local Government:</b> Despite COVID-19, virtual quarterly meetings of the Goulburn Broken Local Government Biodiversity Reference Group were convened, building capacity and networking of local government environment officers and others (Department of Transport, CFA, and DELWP). Meetings included: presentations from the Office of the Conservation Regulator (DELWP compliance and firewood issues); Horse Management in the High Country and Barmah National Park (Parks Victoria); Victorian Koala Management Strategy (DELWP); <i>Flora and Fauna Guarantee Amendment Act (2019)</i> (DELWP); Mitchell Shire growth rates and planning tools; as well as fire management strategies in council owned natural reserves; and Goulburn Broken RCS Renewal. The Group continued to support one another on a range of biodiversity issues.</p>

Biodiversity strategic direction 2: Nurturing partnerships (continued)

**Key Partners continued:**

**Goulburn Broken Indigenous Seedbank and Euroa Arboretum:**

Goulburn Broken CMA continued to support the Goulburn Broken Seedbank (managed by Euroa Arboretum since 2019). Euroa Arboretum has the knowledge and enthusiasm (but requires further funding) to progress the Seedbank into the next 10 years of sustainable native seed collection and supply, for the delivery of catchment revegetation programs. There is a growing demand for native seed and revegetation due to increasing demand for biodiversity, carbon offset and ecosystem services by a growing number of corporations and landholders. Euroa Arboretum is the key delivery agent for the Buxton Gum Regional Land Partnerships (Australian government) project.

**Moira Community Fund:**

A range of activities were carried out during the year, supported by Moira Shire Council. Meeting attendance and reporting, production and distribution of relevant biodiversity educational material, school talks and presentations, community engagement events and a field day were undertaken. Goulburn Broken CMA continues to be a member of the Moira Shire Environmental Sustainability Committee with other key environmental partners, and we provided a response to Moira Shire’s Environmental Strategy.

**Community Networks:**

Five networks (Goulburn Murray Landcare Network, Longwood Plains Conservation Management Network, South West Goulburn Landcare Network, Gecko Clan Landcare Network and Upper Goulburn Landcare Network) and multiple community groups were engaged as service delivery partners, increasing their capacity, delivering incentives to landholders, and community engagement projects. Our community networks remain critical to implementation of the RCS.

**Landcare:**

Delivery of the Victorian Government’s Landcare Grants 2021-22 provided grant funding to 16 projects and support grant funding to 23 community groups.

**Landholders:**

Twenty-four landowners are under ten-year conservation agreements that cover a total of 199 hectares. Many other landholders are engaged in a variety of ways other than incentives, such as the Tree Guard project to protect emerging paddock trees.

**Volunteers:**

Post COVID-19 saw the re-emergence of volunteers in environmental works, however this continues to be impacted.

**New and emerging partnerships:**

We continue to provide revegetation expertise for biodiversity outcomes for organisations such as Kilter Rural, and continue to work with partners such as Odonata and universities.



Biodiversity strategic direction 3: Investing more wisely

Investment in biodiversity conservation in the Catchment is increasingly delivered within a resilience framework, which considers a range of factors and drivers of landscape change that we can respond to. Identifying priority landscapes for onground works and promotion of biodiversity conservation will be a focus of local plan development and implementation.

This will result in more targeted funding and increased certainty that works are achieving desired outcomes.

Continuous improvement and adaptive management underpin the implementation of the Biodiversity Strategy. Synergies are identified between the Biodiversity Strategy, government funding priorities and the formal Expressions of Interest (EOI) process, which identifies project priorities of community and other partners.

Science continues to drive adaptive planning and implementation processes, as we continue to work with researchers and other experts such as:

**Research Agencies:**

Adapting actions based on the best science continues through partnerships with a range of universities and research institutions, such as; La Trobe University, University of Melbourne, Australian National University, Monash University, Charles Sturt University, Sustainable Farms, Cesar Australia, Terrestrial Ecosystem Research Network (TERN) and CSIRO. For example, survey sites have been identified for valuing biodiversity on farms, including trees, farm dams and revegetation with Australian National University.

A project with La Trobe University has determined that revegetation is just as important as remnants in ensuring a diverse and abundant bird community.

**Bogong moth surveys:**

The Mending Mountains for the Pygmy Possum project helped to determine future management options to ensure adequate food resources for this threatened species. A co-presentation with TLaWC was made to the Australian Capital Territory Government at the Bogong moth workshop in Canberra, providing an opportunity to share learnings from this project including Traditional Owner partnerships and undertake collaborative discussions around future scenarios of Bogong moth populations.

**Mending Mountains for Pygmy Possum Project:**

Cat trapping continued to reduce the impact of these predators on the possum population. Possum monitoring has been undertaken by Dean Heinze (wildlife ecologist) at isolated sub-populations to contribute to the management plan, that will inform any future translocations. Spring surveys indicated good numbers of possum recruitment despite recorded litter losses in previous season. Revegetation has been completed of 2,000 food resource plants in key Pygmy Possum habitat areas by TLaWC Biik Environmental. Seed collection has been undertaken by Alpine Nurseries for propagation of plants for Autumn 2023 planting.

**Silver Banksia:**

A focus for Goulburn Broken CMA and many statewide groups (e.g. Australian Network for Plant Conservation and CSIRO), is in improving genetics and revegetation techniques. The team partnered with CSIRO and Deakin University to develop guidelines for the Banksia seed production areas.

**Climate and Biodiversity Project:**

Goulburn Broken CMA were selected to deliver in the second round of this Pilot program, including landholder extension. In total we were able to assist 41 landholders with information about the project, highlighting where to find information and support with threatened species mapping and information. Four property visits were completed. We continued to attend national meetings with other pilot Natural Resource Management delivery bodies to share learnings.

## Long-term strategy implementation progress

## 2021-22 performance

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

Significant effort continues to build biodiversity understanding and awareness across the Catchment. 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. The importance of the links between biodiversity conservation and agricultural productivity has been promoted through providing opportunities for landholders to act as stewards of the land.

Ongoing efforts are required to promote synergies between biodiversity conservation and land management at the farm and landscapes scales.

Conservation Management Networks continue to play a valuable role in promoting the importance of biodiversity conservation across land tenures.

Mixed and unclear messages from a range of sources, such as ongoing changes to native vegetation clearing regulations, pose challenges in strengthening community support for biodiversity conservation.

#### **Land Management Crews:**

YYNAC's Woka Walla and TLaWC's Biik Environmental crews delivered environmental management on country, to control pest plants and animals, and increase extent and diversity of habitat through revegetation activities. The crews carried out cultural burns on public and private land, in partnership with Goulburn Broken CMA, CFA, Parks Victoria and DELWP. COVID-19 continued to impact on capacity of works crews, as did flooding in Barmah Forest.

Revegetation and remnant enhancement activities continue to be delivered strategically, in priority landscapes for critical landscape elements e.g. waterways as corridors and drought refugia, increasing stepping stones through protecting emerging paddock trees.

A revised expression of interest form for landholders wishing to carry out environmental works was developed as an online resource for landholders, to improve efficiency of process.

Ongoing loss of native vegetation occurs from a range of factors such as clearing of paddock trees and remnants (under permit and exemptions), and unmeasured losses due to tree dieback, illegal clearing, firewood collection, ploughing of native/derived grasslands for cropping and fire (planned and wildfire).

#### **Australian Government funded projects:**

##### **Linking Landscapes and Communities:**

Conserving Grey Box Grassy Woodlands and Derived Native Grasslands project delivered 11 10-year management agreements for improved stewardship over 91 hectares of private land.

##### **On Your Guard:**

The paddock tree program distributed 605 purpose-built paddock tree guards, engaging 270 landholders. Landholders collect the guards, which has proven to be an effective way to communicate one-on-one during times of COVID-19 restrictions.

##### **Mending Mountains for Pygmy Possum:**

This project increased and improved the critical Mountain Pygmy Possum habitat areas at Mount Buller through six hectares of revegetation (with a focus on food resource plants), 1,000 hectares of cat control, and 17 hectares of weed control. Project outputs align with recovery plan objectives at Victorian and Australian government levels.

##### **Buxton Gum Revival:**

This project delivered five hectares of surveys on the current extent of *Eucalyptus crenulata* in the Acheron Valley, as well as revegetation of *Eucalyptus crenulata* populations, to improve the long-term resilience of this endangered species. Engagement occurred with landholders through survey and revegetation works to raise the profile of the species and encourage protection of remnant and new sub-populations in identified suitable habitat areas. Delivery of these actions was in consultation with Euroa Arboretum and TLaWC.

##### **Barmah Country:**

The project delivered 400 hectares of weed control, two fox baiting events across 30,000 hectares, and two pig/feral animal control events removing 64 fallow deer and 29 feral pigs, across 10,000 hectares of Barmah National Park (Australian Government funded). Critical to the success of this project is the availability of seed and plants.

##### **Swift Parrot Pantry:**

The project funding was received in April 2022 and planning has commenced to undertake 65 hectares of revegetation (five hectares at Reedy Lake – Parks Victoria site and 60 hectares in northern Victoria on private land). Seven hectares of the private land site will be a Seed Production Area. TLaWC and YYNAC will be engaged to work on country through this project.

Long-term strategy implementation progress	2021-22 performance
--	---------------------

Biodiversity strategic direction 4: Building on our ecological infrastructure (continued)

**Victorian Government funded projects:**

**Ribbons of Blue and Sashes of Green (Biodiversity Response Planning):**  
 This project focused on the Heathcote-Graytown National Park and Rushworth State Forest. TLaWC works crews controlled 55 hectares of weeds; Parks Victoria controlled goats over 39,230 hectares and 59 hectares of management agreements were developed, that include activities such as revegetation and pest plant and animal control.

**Our Catchment Our Communities (Taking Care of Country):**  
 This project delivered 48.9 hectares of improved stewardship of land, through ten landholders' 10-year management agreements.

**Victorian Landcare Grants:**  
 This project provided 16 grant funding projects and 23 support funding projects in areas of community education, pest plant and animal control, threatened species and farm management, providing critical funding for the community.

**Other funding:**  
 Through working with Kilter Rural, 85 hectares of revegetation was implemented in a priority landscape of the Agricultural Floodplains SES.  
 The Goulburn Broken Indigenous Seedbank provided: sales to nurseries = 47 kg, sales for direct seeding = 69 kg and seed collection = 175 kgs.

Biodiversity strategic direction 5: Legitimising biodiversity conservation

Significant effort continues to build biodiversity understanding and awareness across the Catchment. The importance of the links between biodiversity conservation and agricultural productivity has been promoted through providing opportunities for landholders to act as stewards of the land.

Despite COVID-19 continuing to impact on works, Goulburn Broken CMA used a variety of communication methods to promote projects and raise awareness of biodiversity, including field days, signage, media and flyers, one-on-one discussions, and virtual meetings and webinars with service delivery partners.

The 'Year of the Frog' campaign began in January 2022, showcasing Grey Box Grassy Woodland species. A 'Frog of the Month' was highlighted and associated radio, social and print media produced, including 29 media articles and three frog-theme field days.

Our local ABC radio monthly radio segment continued, focusing on the Catchment's flora and fauna with ABC's Matt Dowling.

Traditional, web and social media: Newspaper articles included stories about the Tree Guard project, protection of biodiversity, the 'Year of the Frog' and 23 social media articles about wildlife of the Grey Box Grassy Woodlands.

Booklets and flyers: 'The Ground Storey' booklet continued to be distributed to schools, landholders and NRM groups, to inform farmers about the importance of not-cleaning up their logs and leaf litter. Five thousand copies of the Goulburn Broken catchment calendar were also distributed across the Catchment.

Eleven presentations and field days were held including one held with the Fawkner Scout Group (culturally diverse group) planting trees.

**Community capacity, engagement and involvement**

Long-term strategy implementation and 2021-22 performance related to the community are included throughout the previous table.

## Actions 2019-20, 2020-21 and 2021-22

Action		From funds received				% achieved
		Achieved <sup>i</sup>		Target		
		2019-20	2020-21	2021-22		
<b>Stock grazing management action</b>						
Fence terrestrial remnant vegetation	ha	547	365	157	217	73
Fence wetland remnant	ha	8	-	4	2	200
Fence stream/river remnant <sup>ii</sup>	ha	112	153	90	-	
Binding management agreement (licence, Section 173, covenant) <sup>iii</sup>	ha	6	11	67	-	
Grazing regime change	ha	-	-	-	-	
<b>Habitat loss management</b>						
Revegetation – plant natives	ha	634	607	374	316	118

i. Achievements include those from complementary investment areas (SIR salinity, riparian and instream habitat and channel form and Dryland salinity). For a full list of footnotes please see Appendix 3.

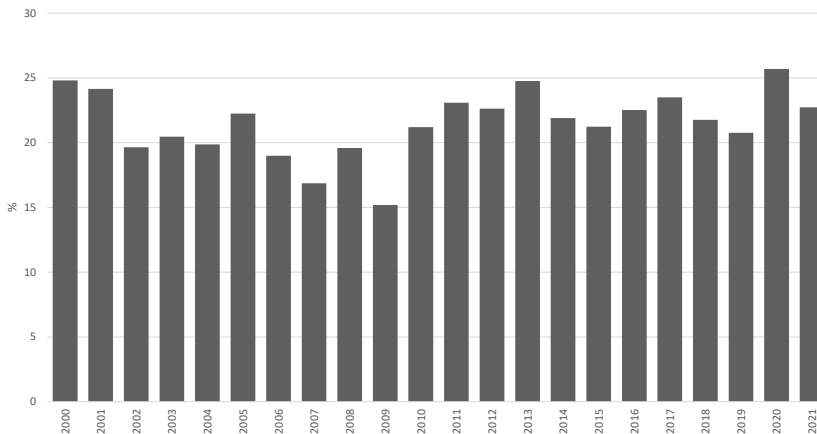
ii. Area figure supplied by River and Wetland Health Program Manager.

iii. These are shown as 'Binding management agreements' in the detailed outputs in Appendix 3, This target will only be reported once a covenant is on title, which may take more than 12 months.

### What's next?

- Continue to work with Traditional Owners in their endeavour to build skills, knowledge, and capacity to plan and deliver works on country.
- Traditional Owner led burning programs continue to be a focus across the Catchment on private and public land.
- Climate change will continue to be a focus, including matching seed sourcing for native flora to increase the potential for species survival in a warming climate, and building seed production areas of climate-matched species provenances. We will continue to integrate climate change adaptation into strategies, planning and project design.
- Deliver projects that align with aspirations and objectives of TLaWC and YYNAC Country Plans.
- Contribute to implementation of the RCS and review the Biodiversity Strategy.
- Continue to promote systems-based approaches for land management to achieve whole-of-farm and catchment outcomes for both biodiversity and agricultural productivity.
- Deliver a range of Victorian and Australian Government funded projects, including review of past programs and advocacy for further funding to support implementation of the RCS, Biodiversity 2037 and our Biodiversity Strategy.
- Continue to work with a range of partners to deliver value-add to projects.
- Continuation of the Carbon and Biodiversity project through supporting landholders to initiate and plan their projects.

### Goulburn Broken catchment percentage tree cover change<sup>i</sup>



i. Annual average woody vegetation cover fraction, derived from Landsat imager by ANU

Source: Centre for Water and Landscape Dynamics, Australian National University. [www.ausenv.online](http://www.ausenv.online)

## Investment area - Land

Compiled by Rhiannon Sandford, Kerstie Lee, Tony Kubeil, Ashley Rogers, Karen Brisbane-Bullock, Steve Wilson, Kate Cunnew (AgVic), Jaye Caldwell (AgVic) and Brad Costin (AgVic).

### Long-term and annual scorecard <sup>i</sup>

2021-22 performance	Exceeded target		
Catchment condition <sup>ii</sup>	1990	2022	Long-term risk
			<b>MEDIUM</b>

Good seasonal rainfall continued to drive confidence in many agricultural sectors. The outcome is likely to include increased growth of crops and pasture, resulting in good ground cover and more organic matter turn over, together with strategic investments in soil health, such as lime, supporting soil health for agriculture.

Good seasonal rainfall also drove an increased requirement for crop residue management, leading to industry investment in determining options that are better than burning (multiple outcomes).

The increased awareness of how soils can be improved is being applied on many farms. However, the changing demographic in the south of the catchment is affecting the use of private land, this is likely to increase in coming years.

Purpose and use of public land remains stable at poor, with visitor numbers and use of public land for recreation increasing and subsequent management issues such as rubbish, access, illegal firewood collection increasing, at the same time as efforts to control e.g. feral grazing species increase.

Catchment-wide invasive plant and animal management is now mainly focused on new and emerging species and complementing community activity. Under present arrangements, there are high and increasing long-term risks in hot-spot areas from existing and emerging threats like deer in the alps, foothills and plains; feral horses in Barmah National Park and key weed species in priority areas. Mice and rabbits also had a significant impact in 2021-22.

Changes in land use continue to impact biodiversity, this includes Peri-urban development and corporate farming.

Resilience assessment						Long-term strategic implementation <sup>v</sup>	
Critical attribute affecting long-term catchment health	Contribution to system function <sup>iii</sup>		Risk to system thresholds/tipping point <sup>iv</sup>			Start	Stage
	1990	2022	Trend 2019-22	Long-term (10+ years)			
				Current support <sup>vi</sup>	No support <sup>vi</sup>		
Soils for agriculture				<b>MEDIUM</b>	<b>HIGH</b>	2006	Middle
Purpose and use of private land				<b>MEDIUM</b>	<b>HIGH</b>	2006	Watch & adapt
Purpose and use of public land				<b>MEDIUM</b>	<b>HIGH</b>	2006	Watch & adapt
Invasive plants and animals				<b>HIGH</b>	<b>VERY HIGH</b>	2001	Middle

Certainty around soils for agriculture is moderate to low with rigorous assessments of soil health, and related to land use, limited. Certainty around the purpose and use of private land is moderate to low with up-to-date data required to confirm our assessment. Certainty around purpose and use of public land is low as condition can change annually, however there is high confidence that the system is declining. There is high confidence in invasive plants and animals ratings supported by major reductions in investment from Victorian and Australian government sources and a good understanding the current regional drivers obtained through the many community engagement and partnership forums that exist.

- i. Appendix 1 describes the analytical framework. Ratings legend is inside front cover.
- ii. Critical attribute contributions and risks are major considerations in rating catchment condition, along with indicators of higher level outcomes from managing these critical attributes, such as viability of threatened species and gross value of agricultural productivity. Long-term risk assumes ongoing support at current levels.
- iii. System is Land; benchmark for contribution is the desired level, as defined (formally or informally) in 2022.
- iv. Risk that system will not be in desired state of resilience in long term because of level of critical attribute contribution. Risks can be from biophysical threats, such as climate, or other, such as community's adaptive capacity. Desired state might be other than current state.
- v. Long-term strategies vary significantly in formality: 'start' approximates when holistic, integrated approach to influencing critical attribute began.
- vi. Support includes government funding and community (including individual) in-kind and financial investment for onground works and helping communities and individuals adapt.

### Government investment, \$000

2019-20	2020-21	2021-22	2022-23 <sup>i</sup>
428	622	501	420

- i. Forecast is based on the Corporate Plan 2022-23.

## Strategic references

The Goulburn Broken Land Health Strategy 2017-2020 guides investment of public funds in improving the Catchment's land resources. The Goulburn Broken Biosecurity, Invasive Plants and Animals Strategy 2019-2025 sets the high-level direction for this investment in the Catchment and supports the Victorian Invasive Plants and Animals Policy Framework. Priorities for pest management are also guided by community initiative and support. The Murray-Darling Basin Authority and Victorian Government's land, salinity and agricultural strategies are also pertinent references for land management. Appendix 5 includes a more complete list.

## Background

Land is a fundamental part of the natural environment supporting ecosystems, livelihoods and lifestyles of the community. It is used for many and varied purposes making it difficult to define a rating condition to encompass all uses; good condition for one use maybe poor for another. In terms of Natural Resource Management, good condition is defined as healthy functioning land systems that provide ecosystem services and deliver on a range of cultural, lifestyle and economic outcomes. In assessing the natural resources that underpin healthy land and support its function, we have devised indicators that work for many purposes. These are: species diversity, ground cover, soil organic carbon and soil acidity.

Seventy percent of the Goulburn Broken catchment is privately owned (1.68 million hectares), with about 63 per cent managed primarily for agricultural production and the remaining 7 per cent a mix of rural residential and urban development. Approximately 30 per cent (800,000 hectares) is public land that is primarily reserved for environmental and cultural conservation, nature-based tourism and timber harvesting. Public land is co-managed by Traditional Owners and government agencies.

The diversity of private enterprises continues to grow in areas such as solar farms, glasshouse horticultural production and tourism. At the same time, traditional agricultural businesses such as cattle and sheep grazing, horticulture, broadacre crops, hay production and dairy production remain dominant.

The Australian Government invests in the Goulburn Broken catchment's 'land' via the From the Ground Up project, the Regional Agriculture Landcare Facilitator project and the C + B Pilot. The Victorian Government invests in 'land' through programs including Victorian Biodiversity Response Planning, Landcare and Good Neighbour, Local Government Roadside Weeds, the Shepparton Irrigation Region Land and Water Management Plan, Climate Change Adaptation in Agriculture, and the Goulburn Broken CMA Waterways program. As per previous years, there is no dedicated funding for some aspects of land, such as soil conservation works or treatment of soil acidity, however Goulburn Broken CMA is able to influence land outcomes through investment in project activities such as grazing training to manage ground cover, revegetation for biodiversity with complementary erosion gully protection, soil carbon and soil fertility training and through roles such as being a referral authority on flood-prone land and participation in multi-stakeholder forums.

## Catchment condition (since 1990)

### Agricultural land

Since 1990, farmers are increasingly aware of the importance of groundcover, managing eroding gullies, and monitoring soil acidity and salinity. More recently, climate change, industry carbon targets and carbon farming are driving increasing interest from all landholders about how they manage and utilise ecosystem services such as carbon cycling and sequestration, shade and shelter, to adapt to climate change and meet emissions targets. Even more recent is growing interest in natural capital and biodiversity stewardship and the importance of habitat for pollinators and predators.

Working with partners, Goulburn Broken CMA helps landholders meet long-term goals for soil health including capacity to store carbon, hold water, and be productive. These long-term goals for soils are addressed by increasing soil organic matter, addressing soil acidity, fertility, erosion and salinity.

**Long-term objectives: Between 2017 and 2023:**

- **Soil pH at or above 4.8-5.0 (CaCl<sub>2</sub>), or with aluminium levels below 5 per cent, on agricultural land.**
- **Soil organic carbon equal to or above 2 per cent, and where possible, increasing.**
- **Maintain greater than 70 per cent groundcover 100 per cent of the time on agricultural land.**

In 2021-22 there was no funding for soil testing outside of demonstration sites, so there is no new pH or soil carbon data. There will be funds in 2022-23 however data will more indicative than quantitative but will give good insight into landholder prioritisation and management of soil acidity and soil organic carbon.

Ground cover and soil organic carbon are key to making the most use of rain when it falls and therefore healthier, more resilient soils for sustainable management of the catchment. Ground cover is also critical in preventing soil erosion, however the amount of groundcover needed varies considerably with topography, soil type, rainfall and land use. Seasonal conditions have a significant impact on achievable ground cover. Chronic soil problems, such as compaction, acidification, erosion, and soil carbon loss, are not immediately obvious, prompting the need for soil assessment and education around maintenance of healthy soils to determine solutions that fit many different soils and climates, and landholder objectives.

Saline discharge sites remain present and active, with most sites able to be managed, confining impact to the local site or farm. It remains an expectation that saline discharge will emerge as a more obvious problem in wet years.

Water policy reform and reduced water availability over the last decade is forcing fundamental changes in the Shepparton Irrigation Region (see Sustainable irrigation section page 75).

Elevated land values continue to drive farm subdivision and land turnover. This increased markedly due to the 'tree change' driven by COVID-19. Smaller parcels of land are often problematic for land health outcomes. When non-commercial in size, issues such as overgrazing are frequent. It is also hard for these properties to get contractors. The flip side – some of these properties may be used for more passive purposes and work to support biodiversity and habitat. Well-managed productive land is important for food security, economy and meaningful employment.

## Public land

Since 1990 large areas of public land have undergone a change in reservation status. National Parks such as the 9,310 hectare Lower Goulburn National Park and the 28,500 hectares Barmah National Park are now established. Licences to graze Crown frontages along streams have been revoked as part of establishing these national parks, and significantly tighter restrictions have been placed on other existing Crown frontage licences. The changed reservation status has benefited native vegetation and associated ecosystems, improving water quality and habitat for biodiversity.

Although environmental resilience has improved as a result, significant challenges remain or have emerged, like fire, climate change, invasive plants and animals and increased recreation pressure (see [www.heartofvictoria.com.au/nature-at-its-best](http://www.heartofvictoria.com.au/nature-at-its-best)). Some pockets of tension between personal and broader community purposes, such as those related to logging, deer, or feral horses, require significant whole-of-stakeholder commitment to resolve.

In 2021-22 some licensed Crown frontages have had their conditions changed to allow public camping alongside other private use, such as grazing. The impact of this on the condition of these frontages is yet to be seen, however there is some community concern about ongoing management and site impacts. Debate remains on the details surrounding greater access to water frontages for camping and other recreational purposes. Adjoining landholders are voicing their concerns surrounding the protection of their assets from damage and biosecurity.

More information on the condition of public land can be found in the Biodiversity (page 58) and Waterways (page 38) sections.

## Invasive plants and animals

In the Goulburn Broken catchment, invasive plant and animal management is built into projects and programs where possible. The 'biosecurity approach' of the Goulburn Broken Biosecurity, Invasive Plants and Animals Strategy 2019-2025 emphasises the prevention and eradication of high-risk new or emerging weed species. This approach is considered the most cost-effective use of limited resources.

Where groups demonstrate sustained, coordinated effort over several years to control State priority invasive plants and animals, Agriculture Victoria (AgVic) endeavours to provide support through targeted compliance programs.

Many species of invasive plants and animals have become naturalised and invade areas of the Catchment.

Foxes, wild dogs and feral cats kill millions of native animals each year. Rabbits cause erosion and, together with deer and pigs, compete for resources and prevent natural regeneration of native flora. Deer impact on alpine bogs, wetlands, and riparian zones as well as impacting revegetation sites. Adult Sambar Deer are rated as 2.5 Dry Sheep Equivalent, pressuring many agricultural industries and enterprises.

Pest plants outcompete native species, reducing diversity, and can provide harbour for pest animals.

## Long-term strategy implementation progress and 2021-22 performance

Goulburn Broken CMA continues to work closely with AgVic, Landcare networks and groups, and industry groups for strategic implementation of Land outcomes.

## Community capacity, engagement and involvement

See also Community section (page 33).

Goulburn Broken CMA's Land, Biodiversity and Indigenous Team supports the delivery of actions through Victorian and Australian government funding streams. This recognises that to be resilient, systems within and beyond the farm fence require a focus on connections between all elements. Team members work closely with relevant agencies such as Parks Victoria, DELWP, AgVic, local government, water authorities, community groups and individuals.

Where appropriate, Goulburn Broken CMA and partners encourage farmers to provide broader community benefits by using areas of native vegetation, waterways, wetlands and rocky outcrops for more passive purposes. These aspects of land are reported in the Biodiversity and Waterways sections. Goulburn Broken CMA also works with industry and Landcare networks to support innovation in farming methods that increase sustainability such as regenerative grazing, integrated pest and disease management, precision soil testing and fertility mapping, and plant-based approaches to increasing soil organic matter such as cover crops.

Funding to community groups included the Victorian Government's Landcare grants, Communities for Nature and Climate Change Adaptation in Agriculture projects, and delivery through the CMA of the Australian Government's National Landcare Program.

Community engagement is critical to successful delivery. Extension and education events are developed and implemented, often through delivery by community networks, to increase awareness of the importance of creating healthy landscapes, healthy soil, conserving biodiversity and adapting to climate change.

During 2021-22, our Australian Government-funded project, 'From the Ground Up' delivered activities via 22 sub-projects worth \$420,000 through Goulburn Broken CMA and project partners (see Key partners box below). Activities included 14 demonstration sites, 32 workshops, 12 field days and 59 communication materials. 850 participants (of which 474 were farmers) managing more than 72,000 hectares participated in program activities.

The Goulburn Regional Partnerships Climate Change Adaptation in Agriculture – Goulburn Broken, via Climate Ready Hume, DELWP, supported five projects coordinated by five Landcare groups and one via the University of Melbourne, to deliver six workshops, three short videos, one dairy farming fact sheet, two case studies and a shelterbelts and soil health experiment. More than 100 farmers, managing over 13,000 hectares, participated in events. The videos have received nearly 400 views to date.

During the 2021-22 year the Victorian Landcare Grants supported community led pest plant and animal projects worth \$25,000 across 2600 hectares to combat the impact of blackberries and foxes on local environments and farms.

### Key community groups and partners include:

**Landcare Networks:** Up2Us, South West Goulburn, Upper Goulburn, Goulburn Murray, Hughes Creek, Gecko CLaN.

**Conservation Management Networks:** Strathbogie Ranges, Longwood Plains, Whroo Goldfields, Broken Boosey.

**Industry and producer groups:** Irrigated Cropping Council, Maize Association Australia, Riverine Plains Inc., Vic No-Till Farmers Association, Grasslands Society of Southern Australia Mid Goulburn branch.

**Landcare and community groups:** Friends of the Marysville Walks Inc., Turtles Australia Inc., Fords Creek Landcare Group, Euroa Arboretum Inc., Strathbogie Tableland Landcare Group, Kyabram Urban Landcare Group, Greta Valley Landcare Group, Granite Creeks Project Inc., Gooram Valley Landcare Group, Creightons Creek Landcare Group, Molyullah Tatong Land Management Group, Glenaroua Land Management Group, Warby Ranges Landcare Group, Yea River Catchment Landcare Group, Strath Creek Landcare Group, Murrindindi Climate Network.

## Ground cover in agricultural land

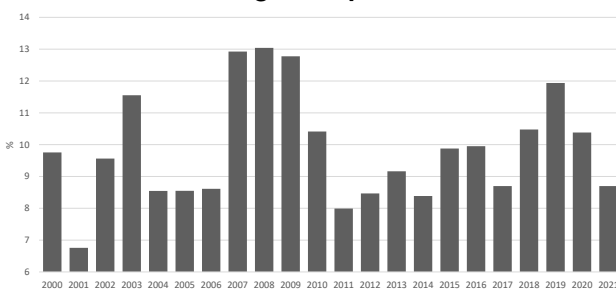
Agricultural land is defined as cropping and grazing land and covers 66 per cent of the Catchment. When ground cover is above 70 per cent, it is deemed to be protected from both wind and water erosion. Wind and water erosion risk are mapped over broad geographic areas using ground cover data obtained from RAPP Map.

April is generally the point of lowest ground cover. In April 2022, 94.2 per cent of agricultural land was likely to be protected from erosion with greater than 70 per cent cover. The flip side, 5.8 per cent of this area (91,380 hectares) was vulnerable to water erosion. This is a decrease in potential exposed land by 4 per cent on April 2021. April 2020 and 2021 show similar soil protection levels of around 90 per cent; these results likely reflect good growing season rainfall across the past three years.

For whole of Catchment (agriculture and public land / land used for conservation and natural environment) in April 2022 4.4 per cent (105,254 hectares) of the total area was vulnerable to at least water erosion (less than 70 per cent cover).

In reporting this data, we note that RAPP Map uses remotely sensed 500m pixel data on monthly time steps so fractional ground cover changes over small areas are not likely to be picked up. It also needs to be noted that under dense tree canopy, ground cover cannot reliably be discerned from overhead canopy cover. So for agricultural land only land with less than 20 per cent canopy cover is used to determine ground cover. In whole of Catchment, tree canopy cover may be impacting reported ground cover. With this said, currently we are under our long-term outcome of 100 per cent of land with at least 70 per cent cover across the Catchment and in agricultural land. This outcome is going to be harder to meet under changed climate and with the prediction of more frequent droughts and intense summer rainfall events.

**Goulburn Broken catchment  
Percentage of exposed soil<sup>i</sup>**



i. Annual mean percentage of soil unprotected by living vegetation or litter, derived from MODIS imagery and CSIRO mapping by the OzWALD model-data fusion system. Source: Centre for Water and Landscape Dynamics, Australian National University. [www.ausenv.online](http://www.ausenv.online).

## Invasive plants and animals

Different pest plants and animals are targeted through various fund sources, including Victorian Biodiversity Response Planning, Landcare and Good Neighbour programs, Local Government Roadside Weeds, NLP Linking Landscapes and Communities project and the Goulburn Broken CMA Waterways programs. Community groups use local connections to encourage high levels of landholder participation in coordinated pest control programs where neighbours work together. All programs foster community support and ensure the best outcomes from the small investment available.

Goulburn Broken CMA participates in the North-East Deer Round Table forum. During COVID-19 this forum has retained a level of contact via electronic means.

Goulburn Broken CMA also assists DELWP with linkages to local landholders in the Holland/Ryans Creek catchment and the Warby ranges to undertake feral pig control.

In consultation with community groups, targeted compliance and extension activities were delivered to support large-scale rabbit and weed control programs, ensuring participation of all land managers in project areas.

Community groups are leading coordination of local weed programs. In Mansfield, Up2Us Landcare Alliance coordinates state and local agencies to collaboratively make the biggest impact on weeds through an annual weeds forum. On the northern side of the Strathbogie Ranges, the six Landcare Groups within the Granite Creeks Project are working with Strathbogie Shire Council to control a variety of community priority weeds on roadsides and adjoining land.

Wild dogs continue to provide localised management challenges for several landholders that operate at the interface with public land. Community project and information sessions provide up to date best practice control and exclusion fencing options.

Investment in community-driven blackberry control works continued, in parallel with AgVic and existing Blackberry Action Groups, with some great works and engagement occurring in the Sunday Creek catchment area.

Management of all known sites of State Prohibited Weeds and Regionally Prohibited Weeds remained a high priority and control activity was delivered by AgVic.

The Goulburn Broken CMA River Health Program and Goulburn-Murray Water (GMW) continue to monitor and implement control activities in at risk waterways for aquatic weeds e.g. Cabomba at Lake Benalla and Arrowhead in lower Broken Creek.

The Australian government funded Linking Landscapes (Grey Box) project continues to support (through funding and



coordination), pest plant and animal control on both private and public land across the targeted project area. This has included 537 hectares of pest plant and 481 hectares of pest animal control on private land; and 2,641 hectares of pest plant and 1,693 hectares of pest animal control on public land, over the last four years.

AgVic Invasive Plants and Animals activities in 2021-22 were impacted across the state by staff deployments to biosecurity and emergency responses such as the Gippsland Severe Weather Event, as well as the impacts generated by the tail end of the COVID-19 pandemic lockdowns.

Key highlights of operational works undertaken on Invasive Plant and Animal projects by Agriculture Victoria staff include:

- Regionally Prohibited Weeds (eight projects, including seven compliance projects and one surveillance project): targeting Serrated Tussock, Artichoke Thistle, 1 and 2 leaf Cape Tulip and ragwort; 157 properties and public land sites inspected; 7000 hectares inspected; 15 Directions Notices issued, with all land owners complying. Two Artichoke thistle sites deemed eradicated after approximately 20 years of treatment and monitoring.
- Granite Creeks area rabbit compliance project: 37 properties and public land areas targeted; 1830 hectares inspected; one Direction Notice issued; Control works were conducted on several properties by land owners.
- Sunday Creek – Waterford Park area Blackberry compliance project: following on from a previous extension and compliance projects, three properties covering approximately 770 hectares inspected to assess ongoing works by the landowner.

State Prohibited Weeds sites were monitored and treated where required: 3 Water Hyacinth sites monitored; 5 Camel Thorn sites monitored and treated; 1 Giant Knotweed site monitored; 1 Mexican Feather Grass site monitored and deemed eradicated. Every known site of Mexican Feather Grass in the Goulburn Broken catchment has now been eradicated after initial treatment and 10+ years of monitoring.

As a consistent investor in pest plants and animals, the Victorian Landcare Grants provides funding for the community to undertake Pest Plant and Animal control works. Due to the impact of COVID-19 these grants were released later in 2021 with agreements signed early 2022, however many groups had carry-over projects that maintained a small level of control works across the year.

## Regional Agriculture Landcare Facilitator and Landcare

The Regional Agriculture Landcare Facilitator sits within the Land, Biodiversity and Indigenous Team. Funded by the Australian Government's National Landcare Program, the facilitator works to support farmers and land managers in the Goulburn Broken catchment to increase their awareness, knowledge and skills in sustainable farm management practices. The facilitator also supports regional community leaders and groups engaged in Natural Resource Management and agricultural productivity to increase their capacity, confidence and participation.

The project focuses on private land used for agriculture supporting the delivery of the NLP/RLP 'From the Ground Up' project via workshops, short courses, field days, and publications in partnership with community, industry groups and government.

The Regional Agriculture Landcare Facilitator has taken the lead in strategic planning with the community natural resource management networks across the catchment. In collaboration with each of the networks and the Regional Landcare Coordinator, the Facilitator is creating opportunities for leadership development within the community, aligning with the Regional Catchment Strategy outcomes and improving the support and strength of our community partnerships.

The continuing development of our community network facilitators and coordinators provides the mechanisms to deliver to our communities what they deem important in the agricultural and biodiversity space. One such mechanism which continues to work well is the peer training program offered across four of the catchments within Victoria – Cascade Connections. This year 38 facilitators and coordinators were supported at the end of April with this event.

## Land managed for conservation, ha

Protection type	Total <sup>i</sup>	Added 2021-22
National parks <sup>ii</sup>	123,937	0
State parks <sup>ii</sup>	41,856	0
Trust for Nature covenants <sup>iii</sup>	1,444	67
Landholder agreements <sup>iv</sup>	8,605	260
Other <sup>ii</sup>	444,492	0

i. Total as at 2020-21

ii. Data from Public Lands Management spatial dataset (PLM25). 'Other' includes Bushland Reserve, Other Reserves And Public Land, Essentially Natural Catchment, Uncategorised Public Land, State Forest, Nature Conservation Reserve, Wildlife Reserve (Hunting), Other (Non Scheduled), Regional Park, Historic Reserve, Streamside Reserve, Natural Features Reserve, Forest Area, Revegetation Area, Parks Victoria Managed Land, Natural Features and Scenic Reserve, Scenic Reserve, Reserved Forest, Wildlife Reserve (Sgr Classification Pending Reservation), Roadside Conservation, Proposed National Parks Act.

iii. Trust for Nature total includes 2010-11 to 2020-21. Added 2021-22 refers to Goulburn Broken CMA-funded sites only.

iv. Includes long-term management agreements (Goulburn Broken CMA-funded sites only).

## Land Health Strategy implementation

Long-term strategy implementation progress	2021-22 performance
Strategic objective: Practice adaptive management	
<p>Activities have focused on meeting landholder needs supported by the RCS through investment priorities of the Australian Government's National Landcare Program.</p> <p>Activities are delivered under six national investment priorities: soil acidity, soil organic carbon, hillslope erosion, native vegetation and biodiversity on-farm, and climate change adaptation. The last priority is consistent with that of the Climate Change Adaptation in Agriculture – Goulburn Broken project.</p> <p>Activities are delivered by Landcare Networks and groups, Industry groups, Conservation Management Network (see partners box page 70), the University of Melbourne, AgVic and Goulburn Broken CMA.</p> <p>Participant surveys provide evidence that landholders do make changes to their land management because of participating in program activities.</p>	<p>Through community and industry expressions of interest, From the Ground Up has sponsored 14 demonstration sites of new and emerging practices in the Goulburn Broken catchment. Most of these sites are multi-year.</p> <p>Demonstration sites include regenerative grazing management; testing stubble and fertiliser treatments aimed to increase soil carbon and crop performance; the impact of different crops on soil carbon level; options for soil carbon management in permanent pastures; measurement and management of grazing impacts on soil nutrient redistribution; native vegetation options for increasing pollinators in horticulture and broad acre crops; and cultivating indigenous food crops with training in their nutritional value and productivity. Field days are held at demonstration sites.</p> <p>From the Ground Up and Climate Change Adaptation in Ag – Goulburn Broken delivered workshops in DIY erosion management, pasture management for erosion and production, Healthy Hectares property management series for small landholders, soil carbon on farms, regenerative agriculture principles, regenerative grazing, landscape rehydration, composted organic waste, dung beetles, crop nutrition, soil structure and fertility, soil test interpretation, cover crops, efficient use of nitrogen, carbon farming, whole farm assessment and planning, short supply chains, visual soil assessment and monitoring, biological brews, weed identification and fungi.</p>
Strategic objective: Strengthen partnerships	
<p>Goulburn Broken CMA continues to foster and grow partnerships with industry groups, community networks and groups, and individuals.</p> <p>Strengthening partnerships with industry and community Landcare groups are reflected in the development and delivery of community and industry projects.</p>	<p>Goulburn Broken CMA continued to work with AgVic to deliver locally relevant workshops in hillslope erosion management.</p> <p>AgVic continued their work supporting agriculture service providers to access new information and skills in soil management through its Service Provider Forums.</p> <p>24 project grants were awarded to Goulburn Broken catchment community NRM groups through the Victorian Landcare Grants.</p> <p>17 project grants were devolved through the National Landcare Program's From the Ground Up project. Two project partner meetings were facilitated.</p> <p>Goulburn Broken CMA worked with DELWP and community groups to deliver communications and workshops for 'Climate Change Adaptation in Agriculture – Goulburn Broken' project. One project was delivered by University of Melbourne.</p> <p>Regional Agriculture Landcare Facilitator assisted with the coordination of Central Cascades Connection workshop with North Central and Corangamite CMAs to bring together the Landcare Facilitators and Coordinators for peer learning. The conference hosted 38 Landcare Facilitators and Coordinators from across these regions.</p> <p>Regional Agriculture Landcare Facilitator coordinated 'Reconnecting Catchment' a forum to bring Landcare Network reps and regional staff together to share and discuss local priorities.</p> <p>Goulburn Broken CMA participated in the Indigenous Consultation Working Group and the Dryland Managers Forum.</p> <p>Goulburn Broken CMA contributed to priorities setting and action planning for the Regional Drought Resilience Plan – Goulburn pilot, led by AgVic.</p>

Long-term strategy implementation progress	2021-22 performance
Strategic objective: Adapt to land-use change	
<p>Land use change in 2021-22 was maybe most influenced by competing demands for land resources between farming, lifestyle and urban land use.</p> <p>Drivers include ongoing population growth and migration into and within the Catchment, with COVID-19 seemingly driving demand even higher and raising land prices significantly.</p> <p>The ongoing challenge is to balance the environmental, social, productive and economic needs as land use change continues and to manage these changes so natural resources, such as soils, water and vegetation, can continue to provide services of high value to people and nature.</p>	<p>Through direct delivery and investment in partners including AgVic, Vic No-Till, Irrigated Cropping Council, Riverine Plains Inc., South West Goulburn, Goulburn Murray and Upper Goulburn Landcare networks, Goulburn Broken CMA has supported decision-making around new and evolving technologies such as organic soil amendments, precision agriculture, regenerative grazing management, irrigation management, and management of soil structure and non-wetting soils.</p> <p>Through the Euroa Arboretum and Upper Goulburn Landcare Network, Goulburn Broken CMA has supported education and capacity building of new landholders and farmers through Healthy Hectares courses and the Upper Goulburn Landcare Network's 'Farmer wants a field' project.</p>
Strategic objective: Support the development of resilient farming systems	
<p>We continue to work with Landcare, producer groups, farmers and AgVic to identify and adapt farming enterprises to have the capacity to respond to change, such as climate variability, changing markets, and are integrated with the natural environment.</p> <p>Interest from graziers in developing resilient pastures in the face of variable and drier seasonal conditions remains high. Resilient pastures comprise high ground cover, perennial species and species diversity for rain-readiness. They are supported by good soil condition for water infiltration and water holding capacity, carbon cycling and storage. Practices include grazing management, soil testing, liming and perennial pasture renovation with annual fodder crops.</p> <p>Interest from cropping farmers remains strong in finding efficiencies through technologies like deep soil testing and soil moisture probes, and in finding ways to improve soil carbon stocks and ground cover without impacting cash crop performance. Interest in integrated pest management and supporting beneficial insects and predators remains.</p> <p>Other resilience building technologies of interest include cover cropping, integrating livestock, addressing soil compaction using compost and soil moisture probes in grazing landscapes.</p>	<p>Staff and project partners delivered 60 activities and 14 demonstration sites around resilient farming to more than 800 participants. Nineteen industry and community partners were involved in delivery. Topics included soil organic carbon, soil carbon trading, regenerative grazing, introduction to soils, soil management and soil test interpretation, compost and biological brews for soil health, erosion management, and property planning for small acreage.</p>

### What's next?

- Continue to support community-initiated projects through the Landcare Facilitators and Coordinators group, the From the Ground Up partners group, and general expression of interest process.
- Continue to coordinate community education opportunities across agencies and build the soil health community network.
- Continue to invest in Landcare, community and industry groups to deliver soil health and sustainable farming projects.
- Link training packages to promotion of improved management practices.
- Work on the identification of improved management practices.
- Develop and implement Goal Attainment Scale survey for participants of From the Ground Up.
- Initiate 500 soil tests through From the Ground Up.
- Review RLP implementation and successes.
- Ensure community input is provided to DELWP in the development of Regional Deer Management Strategies.

## Works and operations

### Soils for agriculture, purpose and use of private land - Actions 2019-20, 2020-21 and 2021-22

Action		From funds received				
		Achieved <sup>i</sup>			Target	% achieved
		2019-20	2020-21	2021-22		
Fence remnant vegetation	ha	486	331	157	217	73
Irrigation drainage environment plans	no.	-	-	-	-	
New irrigation referrals dryland zone	no.	0	4	1	-	
Improved irrigation dryland zone <sup>ii,iii</sup>	no.	11	20	26	-	
<b>Sub-surface water action</b>						
Revegetation – plant natives	ha	344	329	336	285	118
Pasture – plant	ha	-	-	-	-	
New groundwater pumps – public installed	no.	-	-	-	-	
<b>Planning for works action</b>						
Whole farm plans - Level 1 <sup>iii</sup>	no.	-	-	-	-	
Whole farm plans prepared - Level 2 dryland zone <sup>iii</sup>	no.	-	-	-	-	

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

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.

### Invasive plants and animals - Actions 2019-20, 2020-21 and 2021-22

Action		From funds received				
		Achieved <sup>i</sup>			Target	% achieved
		2019-20	2020-21	2021-22		
<b>Weed invasion</b>						
Weeds – aquatic weeds controlled/eradicated	km	28	8	-	-	
Targeted infestations of weeds in high priority areas covered by control programs <sup>ii</sup>	ha	5,773	11,533	2,108	1,848	114
AgVic Biosecurity & Agriculture Services works - Targeted infestations of weeds in high priority areas covered by control programs <sup>iii</sup>	ha	14,000	19,234	7,770	-	
<b>Pest animals</b>						
Pest animal control <sup>iv</sup>	ha	112,621	124,720	157,242	117,807	133
AgVic Biosecurity & Agriculture Services works - Area of high priority rabbit infested land covered by control programs <sup>iii</sup>	ha	1,806	3,002	1,830	-	

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

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

iii. Works completed by DJPR AgVic Biosecurity & Agriculture Services (outside of the Corporate Plan).

iv. Output included since 2018-19, superseding the two separate outputs of fox and rabbit control (excluding the DJPR AgVic Biosecurity & Agriculture Services rabbit control), to encompass the broader range of pest animals being controlled.

# Investment area – Sustainable irrigation

Compiled by: Carl Walters, Chris Nicholson, Caroline Keenan, Carolyn Nigro (GMW), Eamon Reeves, James Burkitt, Joel Pike (AgVic), Mark Potter (GMW), Mark Turner, Megan McFarlane, Rebecca Caldwell, Rebecca Pike (AgVic), Simon Casanelia, Simon Cowan (GMW), Steve Wilson.

## Long-term and annual scorecard <sup>i</sup>

2021-22 performance	On target
---------------------	-----------

Catchment condition <sup>ii</sup>	1990	2022	Long-term risk
			<b>HIGH</b>

Shepparton Irrigation Region (SIR) social-ecological systems depend on highly productive and efficient irrigated agriculture. They are beyond tipping points and are adapting and transforming, creating significant uncertainty and stress.

While water availability for the environment is improving, high unseasonal flows to meet downstream water demands are creating significant impacts to Goulburn River bank vegetation.

Declining water availability for agriculture due to increasing demands and the impacts of climate change is threatening farm and regional viability, making it extremely challenging for the region to adapt to a future with less water.

Water quality has improved significantly and works and long-term dry conditions have stabilised watertables for now.

Intervention is improving some pockets of native vegetation; however most threatened ecosystems remain at high risk. Native vegetation extent is still poor (less than three per cent).

The mix of land use is changing across the SIR, for example the increase in larger and corporate farms, and impacts on natural resources are unclear. However the fast rate of change is creating some uncertainty.

Resilience assessment						Long-term strategic implementation <sup>v</sup>	
Critical attribute affecting long-term catchment health	Contribution to system function <sup>iii</sup>		Risk to system thresholds/tipping point <sup>iv</sup>			Start	Stage
	1990	2022	Trend 2019-22	Long-term (10+ years)			
				Current support <sup>vi</sup>	No support <sup>vi</sup>		
Water availability for the environment				<b>MEDIUM</b>	<b>HIGH</b>	2011	Early
Water availability for agriculture				<b>HIGH</b>	<b>VERY HIGH</b>	2015	Escalated response <sup>vii</sup>
Water quality				<b>MEDIUM</b>	<b>HIGH</b>	1995	Watch & adapt
Watertables				<b>MEDIUM</b>	<b>HIGH</b>	1983	Watch & adapt
Native vegetation extent				<b>VERY HIGH</b>	<b>VERY HIGH</b>	1997	Middle
Farm and regional viability				<b>HIGH</b>	<b>VERY HIGH</b>	2015	Escalated response <sup>vii</sup>

Certainty of ratings is high. Certainty around water quality and water tables information is very high (strong long-term monitoring and evaluation). Certainty around native vegetation and water availability for agriculture is high (reasonably consistent long to medium-term monitoring and evaluation). Certainty around water availability for the environment and farm and regional viability is medium (mixed consistency or shorter-term monitoring and evaluation).

- i. Appendix 1 describes the analytical framework. Ratings legend is inside front cover.
- ii. Critical attribute contributions and risks are major considerations in rating catchment condition, along with indicators on higher-level outcomes from managing these critical attributes, such as viability of threatened species and gross value of agricultural productivity. Long-term risk assumes ongoing support at current levels.
- iii. System is Agricultural Floodplains social-ecological system; benchmark for contribution is the desired level, as defined (formally or informally) in 2022.
- iv. Risk that system will not be in desired state of resilience in the long term because of level of critical attribute contribution. Risks can be from biophysical threats, such as climate, or other, such as community's adaptive capacity. Desired state might be other than current state.
- v. Long-term strategies vary significantly in formality. 'Start' approximates when holistic, integrated approach to influencing critical attribute began.
- vi. Support includes government funding and community (including individual) in-kind and financial investment for onground works and helping communities and individuals adapt.
- vii. 'Escalated response' recognises that the situation has shifted so significantly that difficult and sensitive questions about transformation and transitioning must be considered.

## Government investment, \$000

2019-20	2020-21	2021-22	2022-23 <sup>i</sup>
7,038	4,074	5,971	3,412

i. Forecast is based on the Corporate Plan 2022-23.

## SIRLWMP Vision and Purpose

*The Shepparton Irrigation Region community leads Australia in producing food in harmony with the environment.*

*The purpose of the plan is to support and grow the natural base that is vital for agriculture, biodiversity and people to jointly flourish.*

### Strategic references

Strategies for many themes, such as biodiversity and river management, prepared by the Goulburn Broken CMA and state and national organisations, are integrated in the Shepparton Irrigation Region Land and Water Management Plan (SIRLWMP) 1990-2020. Murray-Darling Basin Authority and Victorian Government water and agricultural strategies are also included.

### Background

The Victorian Government-endorsed final update of the SIRLWMP was launched in 2017. The Sustainable Irrigation Program delivers on the vision through onground works supported by the community-based Shepparton Irrigation Region People and Planning Integration Committee (SIRPPIC).

Since 1990, the SIRLWMP has evolved from focusing on salinity to managing five attributes critical to how the region functions as a system of people and nature:

- water availability (for the environment and for agriculture)
- water quality
- watertables
- native vegetation extent and
- farm and regional viability (which evolved in 2018 from 'farm and food-processor viability').

The approach reflects the Goulburn Broken CMA's emphasis on resilience. The SIRLWMP is implemented by sharing decisions around social-ecological system risks and opportunities. Integration of actions to achieve multiple benefits in terms of critical attributes remains a key principle and a report against eight priorities is included below.

During 2021, achievements from implementing the SIRLWMP since 1990 were presented to the regional community. This is the first step in renewing the SIRLWMP.

Reporting on regional land salinisation and Murray River salinity impacts is included under Watertables (page 78). Additional salinity management in the broader Goulburn Broken catchment is reported under Land (page 67).

### Catchment condition - Sustainable irrigation (since 1990)

The SIR's social-ecological systems are transforming; several key tipping points are breaching, creating uncertainty and significant human and environmental stress.

Over the past three decades, the SIR community has responded to challenges, created opportunities, and contributed more than its share to the broader Murray-Darling Basin objectives. The community has pioneered approaches to salinity management, water quality improvement action, water-sharing for all uses, biodiversity

protection in a heavily populated landscape, and building stakeholder partnerships.

While it is proving difficult for government to maintain appropriate levels of support, the SIR's future remains in a diverse and productive agricultural system within a landscape where amenity usage is increasing.

A key challenge is to keep building capability to take advantage of strong regional networks, natural assets, existing regional and farm infrastructure and proximity to markets. Coronavirus (COVID-19), 2019-20 fires and recent floods remind us we are part of nature and that food production must be environmentally sustainable.

### Water availability

Most of the Goulburn Broken catchment's water flows through the SIR. The Catchment generates 11 per cent of Murray-Darling Basin water.

Extended dry sequences linked to climate change are reducing storage inflows, while water demand has escalated to meet environmental requirements and the world's increasing food demands. Water is also being transferred out of the SIR to other parts of the system as Murray-Darling Basin water users and communities adjust to a different water future. Inter-valley transfers of water to help meet downstream demand, such as from the Goulburn to the Victorian, New South Wales or South Australian Murray systems, have caused high unseasonal flows which have impacted on streambank stability along the Murray River and lower Goulburn River.

#### a Water availability for the environment

Many of the SIR's rivers, streams and floodplain wetlands are internationally significant, including the Ramsar-listed Barmah Forest.

Water began being stored and deployed specifically for the SIR's environment in the early 1990s. There was mixed success in those pioneering years because the small volumes of water delivered for the environment also relied heavily on natural flooding to meet objectives, such as getting waterbirds to nest and raise their young through to the fledgling stage.

The 7,769 gigalitres of water delivered for the environment since the early 1990s have targeted diverse objectives and sites such as: public land biodiversity of the Barmah-Millewa Forest floodplain, Kinnairds Wetland near Numurkah and Reedy Swamp near Shepparton; private land biodiversity of Brays Swamp near Kyabram; and water quality of the Goulburn River and Broken Creek.

More water has been made available for the environment by reducing losses in the public supply system, as well as purchase of water from irrigators. In recent years, a marked increase in water delivered for the environment has reduced environmental risks, sometimes significantly.

See also Stream flows and wetland inundation in the Waterways section page 38.

## b Water availability for agriculture

**Long-term objective: Maintain delivery of 880,000 megalitres for agriculture within the SIR (in an average season of 100 per cent allocation).**

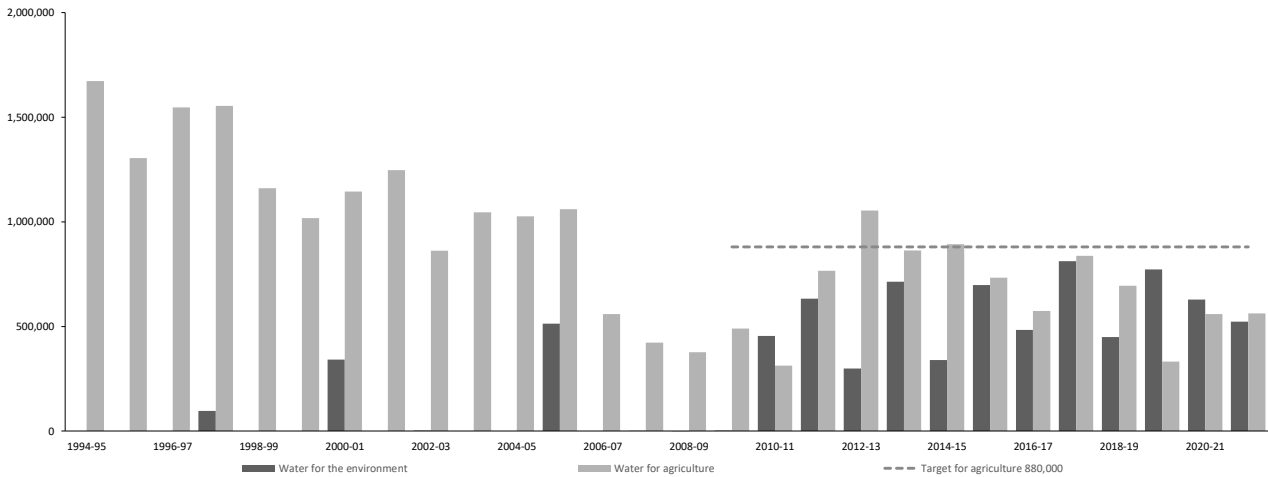
The SIR's prosperity depends on water deliveries for irrigated agriculture. Deliveries have declined significantly and are at risk of reducing further.

Downstream of the SIR, large horticultural enterprises continue to increase water use for new permanent plantations and maturing trees. In drier years, horticultural enterprises usually outbid dairying and others for water, resulting in significant net trade of water downstream. The

880 gigalitres delivery threshold is under review and will be considered in the update of the SIRLWMP in 2022-23.

However, the SIR remains attractive for investment in water use and irrigation development when low long-term costs are factored in, such as transporting goods to market and water delivery losses. Since 1990, irrigators have invested \$2 billion in farm works and have increased productivity while using less water. They continue to invest and innovate to adapt to reduced water availability and other changes within a modernised delivery system.

**Water delivered for the environment<sup>i</sup> and agriculture in the SIR, megalitres**



<sup>i</sup> includes the New South Wales part of the Barmah-Millewa Forest.

## Water quality

**Long-term objectives:**

- *Manage the salinity impacts on the Murray River at Morgan (in South Australia) from implementation of the Shepparton Irrigation Region Land and Water Management Plan at or below the 8.9EC credit allocated to the Goulburn Broken CMA by the Victorian Government to meet MDBA's requirements.*
- *Reduce potential total phosphorus loads by 65 per cent by 2016 (from the benchmark of 361 tonnes).*
- *Reduce total phosphorus loads from irrigation drains by 50 per cent by 2016 (from the benchmark of 169 tonnes).*

SIR surface water is naturally of good quality and is generally suitable for various human and environmental uses. Water quality has also improved significantly since 1990 and meets the above long-term objectives.

The SIRLWMP focuses on keeping water quality within defined thresholds for three categories:

- salinity in the Murray River
- nutrient loads and
- other water quality issues.

Salt loads from the SIR entering the Murray River are minimal compared to load contributions by downstream irrigation regions. The SIR also contributes significantly less salt than the amount allowed under that allocated by the state.

The SIRLWMP balances farm salinity and productivity with removal of salt from the landscape for disposal. Saline groundwater, irrigation channel and drain flows are disposed of through tight operational procedures. Counterintuitively though, the reduction in relatively fresh water from the SIR through more efficient use of water, impacts on the measured salinity at Morgan in South Australia increasing the theoretical usage of EC credits.

Since 1990, SIR salt loads have notably declined: a drier climate and large-scale water-use efficiency projects have significantly reduced water flows and associated salt in SIR channels and drains that outfall into the Murray River. The Goulburn Broken Water Quality Strategy implemented between 1996 and 2016 reduced nutrient loads and therefore blue-green algae blooms.

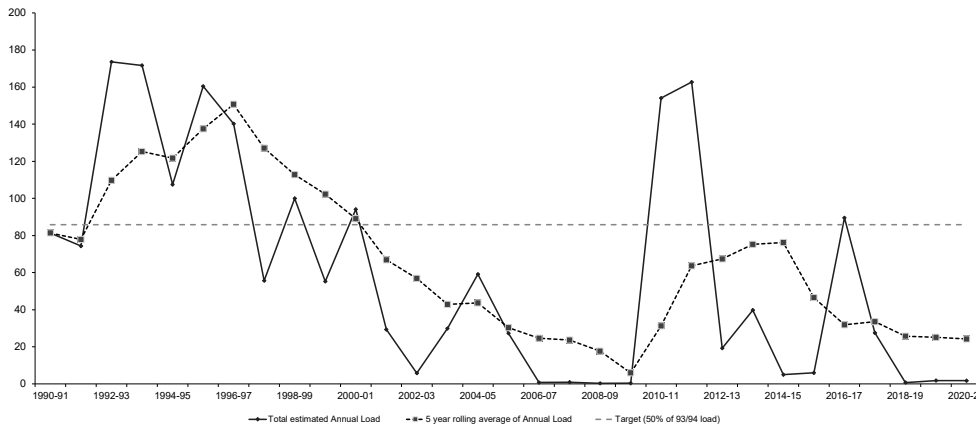
As for salt, nutrient loads have also been reduced by the decline in water volumes out-falling into streams from channels and drains. As well as a drier climate, actions directly implemented under the SIRLWMP or influenced by the SIRLWMP have been major contributors to nutrient reduction.

Actions include farm reuse dams, diversion storages, improved dairy effluent management, reduced streamside grazing, upgraded water treatment plants, improved drain design, improved streamflow management, and improved streamside native vegetation.

The regularly reported five-year rolling average total phosphorus loads from both the overall Goulburn Broken catchment and from irrigation drains (see graph below) are below the long-term targets. Spikes in phosphorus loads are caused by significant rainfall events. Water quality strategy actions have helped to reduce the frequency and severity of these spikes in loads.

Waterways are well within the Environment Protection Authority's thresholds for most other water quality issues, and a watching brief is appropriate (mainly for sudden events and negative long-term trends). In the Goulburn River, regional agency partners are managing increasingly frequent blackwater events caused by upstream rainfall.

**Annual phosphorus loads from all irrigation drains in the Goulburn Broken catchment, tonnes/year**



## Watertables

**Long-term objective: By 2020, minimise irrigation-related salinity impacts from shallow watertables on 500,000 hectares.**

Saline watertables that are close to the land surface or that rise rapidly after a rainfall event can cause waterlogging and salinity, threatening agricultural and regional productivity as well as wetlands and streams locally and hundreds of kilometres downstream.

Over the SIRLWMP's life, watertable risks have reduced because of lower accessions (less water reaching the watertable) and active measures to mitigate when watertables are high or rising. More specifically, watertable accessions have reduced due to a number of factors including:

- water-use efficiencies on farms from major, widely adopted improvements
- water-use efficiencies in the regional irrigation delivery system from major upgrades (reduced losses from channels)
- better and more extensive surface water drainage systems
- less rainfall directly on wet land due to a drying and changing climate
- less water being available to irrigate and
- land-use change, driving changes in irrigation.

Active management of high or rising watertables includes a stronger focus on protecting the rootzone within the soil profile. This has more recently resulted in greater tailoring of solutions and targeting of higher-risk areas rather than broadscale, heavily engineered approaches. The solutions are also less costly, adaptive, and integrate better with farm, local and regional needs.

Goulburn Broken CMA and Goulburn-Murray Water jointly manage drainage to support agriculture and the environment. Drainage management is tailored to meet varying risks across the SIR's 460,000 hectares of irrigable

land, and it remains a high priority in sub-catchments where drainage improvement is still needed, covering 103,000 hectares.

Surface drainage and groundwater pumping buffer and manage watertable accessions resulting from intense rainfall events, which tend to be localised, random and increasingly occur in summer.

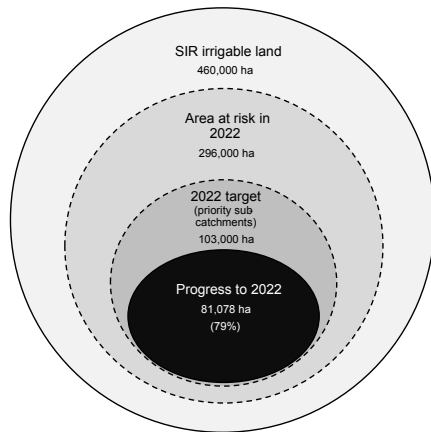
Drainage Course Declarations (DCD) and associated obstruction removal programs developed and implemented more recently as part of the hybrid drainage program, through the SIRLWMP, avoid the need for large excavated drains, land acquisition and on-farm works. Works to remove obstructions and restore the drainage flow path within the DCD will connect currently fragmented natural drainage lines to restore natural flow patterns. The DCDs and associated Management Plan implementation provide economic, social and environmental benefits by contributing to reduced water logging and salinity impacts, which in turn will benefit agricultural productivity, environmental values and infrastructure.

Drier conditions in 2018 and 2019 resulted in further contraction in land areas with high watertables, with more average winter rainfall leading to a marginal expansion of high watertables in 2020 and 2021. In 1988, the SIR had 188,000 hectares (more than one-third) with watertables within two metres of the surface (one indicator of 'high' and being 'at risk'). In 2020, this area had reduced to just 15,000 hectares, and then reduced further to approximately 8,350 hectares in 2021. Although it is prone to change: rainfall on a wet catchment is now known to cause both rapidly rising shallow watertables and the re-emergence of related threats, as happened in the wetter years of 2011 and 2016.

In 2020, 296,000 hectares of the SIR remain 'at risk' in the long term from waterlogging and salinity.



### Progress in managing salinity impacts, Shepparton Irrigation Region



### Farm and regional viability

**Long-term objective:** *Help farm and food processors to continue to be viable, by supporting the natural base in a way that helps them adapt quickly to changing agricultural markets and demands.*

Since 1990, farmers have faced a changing climate, variable domestic and world markets, and increasing costs of land, irrigation water, nutrients, energy and technology. Seasonal conditions, climate change, fluctuating commodity prices and transformative changes in water, agriculture and planning policy have been driving more recent rapid changes across the irrigated landscape. Land and water use change continue to be monitored through the SIRLWMP to build further understanding of how irrigated agriculture is changing across the region. It is clear however, that this region remains a viable and attractive place for irrigated agriculture and is an integral part of Victoria's food bowl.

Irrigation farmers and irrigation-dependent industries have responded by continually innovating and diversifying. Agricultural productivity has increased significantly while using less water and improving technologies and market diversity.

Since the start of SIRLWMP implementation, farmers have been supported to upgrade irrigation infrastructure and improve water-use efficiency. Between 2008 and 2020, a \$2 billion state-of-the-art irrigation delivery system was installed (the Connections Project). It has been complemented by world-class farm infrastructure and management, partly through the Farm Water Program which saved over 80 gigalitres water on farms from 2010-2018.

Demands for advice on energy efficiency and soil moisture monitoring have grown in response to increased energy and water costs. Through SIRLWMP support, irrigators have assessed energy needs and have installed soil moisture monitoring equipment to better understand crop water requirements.

Indigenous participation in agriculture and natural resource management has increased through indigenous ownership of farmland, supported by the Sustainable Irrigation Program's involvement in the Tri-State Alliance.

SIRLWMP initiatives are helping make the most of the SIR's natural advantages of sunshine, soils and a flat landscape, rainfall, readily available water and proximity to markets. In 2017-18, the gross value of agricultural productivity in the Shepparton region was \$1.9 billion (13 per cent of Victoria's \$15 billion) (ABS 2019).

As a result of the SIRLWMP, the community knows there are productivity benefits while protecting the natural resource base. However, farmers and communities continually grapple with questions around how to adapt and thrive in the face of rapid changes, including a future with even less water. Continued government incentives and extension services are still needed to help farmers and the community know when to persist with current approaches and when to adapt or transform.

As farm systems and irrigation-dependent industries transform, many localities experience uncertainty and stress. This threatens both the social fabric that enables communities to cohesively adapt and the viability of farm enterprises that allows them to invest in change and the environment. Small family farms that dominated the land-ownership mix in 1990 are moving to larger enterprises. This forces adaptation of approaches in engaging people in the SIRLWMP.

Awareness of the benefits of living in areas like the SIR has grown during the COVID-19 pandemic. This will create significant opportunities and challenges for our agricultural systems, environment and communities.

## Native vegetation extent

**Long-term objective:** By 2030, the extent of native vegetation will be increased by two per cent across nine focus landscapes.

A healthy environment is critical to our long-term productive capacity and quality of life. Native vegetation extent is a key critical attribute in the SIR Land and Water Management Plan.

During the twentieth century, agricultural development in the SIR rapidly changed the landscape through removal of native vegetation, including the loss of many flora and fauna species. More than 97 per cent of plains grassy woodland on private land was cleared.

Remaining native vegetation on private land is largely fragmented and despite ongoing works by stakeholders including private landholders, many remnants lack the shrubs, ground layer, fallen logs and other habitat elements for hosting diverse flora and fauna.

Fortunately, the SIR has significant public land reserves with native vegetation, including:

- the river red gum-dominated, Ramsar-listed, 28,520 hectare Barmah National Park
- corridors along waterways such as the Broken-Boosey State Park and the 9,310 hectare Lower Goulburn National Park and
- corridors along roadsides.

The SIR community have been working diligently over many decades to improve the amount of native vegetation, its quality and its connectivity through the landscape. Native vegetation in our reserves has benefited from a general decline in grazing pressure thanks to initiatives such as private-public boundary land fencing programs and changed crown frontage licence conditions.

Significant habitat benefits have also been gained on public and private land since 1990 by integrating native vegetation into complementary SIRLWMP activities (see graph below).

Management plans have been developed and implemented for many significant wetlands, such as Reedy, Doctors, Brays and Black swamps, and for smaller reserves with native vegetation. These wetlands benefit from environmental water delivery and monitoring through extensive stakeholder partnerships.

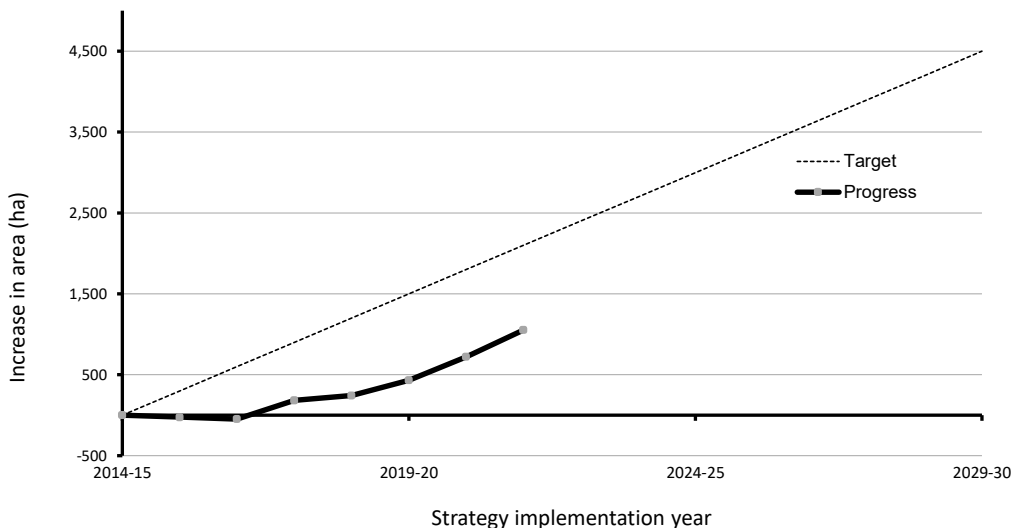
There are many examples of increased native vegetation extent along roadsides, waterways and on private land, and we continue to work with all partners to implement works to improve native vegetation extent.

However, despite efforts to improve native vegetation extent, the scale of change is not enough to ensure long-term survival of all native species. Many species are at very high risk now and the system is at very high risk of tipping into a further undesired state. Sadly, incremental clearing continues to occur, particularly through direct removal and inappropriate fire management.

‘Focus landscapes’ are small habitat sub-systems within the SIR with the most potential for significant habitat to be protected, restored, and connected. Targeting works in these landscapes increases native vegetation extent, improves connectivity and provides many species with a bridge to the future.

Native vegetation extent increased by 332 hectares across the nine focus landscapes of the SIR in 2021-22, which is 15.8 per cent of the 2100 hectare cumulative target by 2021-22. This brings the total native vegetation extent increase to 1053 hectares in the SIR since 2014-15. This is 23.4 per cent of the 2030 target of 4,500 hectares, placing us well behind schedule.

### Native vegetation extent across nine focus landscapes in Shepparton Irrigation Region, ha<sup>i</sup>



i. This graph illustrates the SIR data, a subset of the Catchment wide biodiversity data.

## Long-term strategy implementation progress and 2021-22 performance

Progress towards long-term strategy implementation is satisfactory in some areas but falling behind in others (see the bar chart on page 86). Further details are provided below.

Long-term strategy implementation progress	2021-22 performance
<b>Priority: Update irrigation infrastructure, including the irrigation delivery system and farm design</b>	
<p>Irrigation modernisation, which began through the GMW Connections project in 2008 and the Farm Water Program in 2009, helps reduce salinity threats and achieve water savings for the environment and irrigators.</p> <p>At June 2021, incentives for 4,456 whole farm plans have translated into large-scale changes, such as laser levelling and installation of 3,556 irrigation reuse systems, creating water-use efficiencies across 326,092 hectares.</p> <p>In recent years the emphasis of government investment has shifted from farm infrastructure to planning and advice on best practice.</p>	<p>With the relaxation of COVID-19 restrictions demand for irrigation system and energy assessments continued to grow across the 2021-22 irrigation season. Assessments completed have revealed many systems, both old and new, are not performing at their maximum efficiency and with some tweaks can operate in a much more efficient manner.</p> <p>The Irrigation System Selection Design Tool which was first created over 15 years ago was updated and re-released online. The Tool steps an irrigator through the questions they need to consider when selecting an irrigation system that is suitable for their property.</p> <p>In 2021-22, 21 plans were completed. These were the first plans completed with the revised 50 per cent incentive cost share agreement.</p>
<b>Priority: Build natural resource management into the farming system</b>	
<p>As at June 2021, whole farm plans (WFP) in the SIR have been completed on 4,456 properties covering 326,092 hectares and a further 482 'modernised' plans covering 54,233 hectares have been done.</p>	<p>The whole farm planning incentive scheme recommenced in mid-June 2021. The incentive was modified with a reduction in the incentive available, down from an 85 per cent rebate to a 50 per cent rebate as well as caps placed on the size of the maximum grant payable. This was due to reduced funding. Work also commenced linking in the whole farm plan program with the Goulburn-Murray Water, Water Efficiency Program (WEP) thus maximising the benefits on-farm of the WEP program.</p> <p>The Agricultural Redevelopment Coordinator (ARC) Pilot Project continued to help numerous new redevelopment projects in 2021-22. Potential end users of a One Data Platform, a platform which contains land and water information at a property level, were consulted to see what data and information they sought and in what format.</p>
<b>Priority: Reconnect large areas of enhanced nature</b>	
<p>Delivering outcomes in focus landscapes is the priority to increase extent and connectivity of native vegetation across the region.</p> <p>These focus landscapes prioritise areas where large areas of native vegetation remain, such as along waterways, roadsides, in and around wetlands, scattered remnants and paddock trees. Connecting these areas aims to provide continuous habitat for wildlife to move through the landscape.</p>	<p>Biodiversity Response Planning (BRP) and National Landcare Program (Regional Land Partnerships) projects continue to be implemented: Linking Lower Goulburn, Ribbons of Blue, Sashes of Green (Ironbark) and Linking Landscapes (Grey Box project) incentives deliver native vegetation works of over 1,262 hectares.</p> <p>One covenant was secured on title near Kotupna totalling 67 hectares. This was made possible through Victorian Government Biodiversity Response Planning funding.</p> <p>Engagement with indigenous groups to implement onground works at many sites, including a 250 hectare property near Barmah continued, along with onground works (e.g. pest plant and animal control, and turtle monitoring) in Barmah National Park.</p>
<b>Priority: Build stewardship, incorporating local action and ideas</b>	
<p>SIR farmers and irrigation-dependent industries have responded to challenges by continually innovating and diversifying. Agricultural productivity has increased significantly while using less water and impacting less on the landscape.</p> <p>People and their relationship with the region's natural resources is critical to the success of the SIRLWMP. Stewardship of natural resources and the environment is encouraged. Community leaders are promoting the region within and beyond its boundaries to help manage issues through partnerships between with the community, agencies and policy makers.</p>	<p>As part of the Tri-State Alliance's Follow the Flowers project the Goulburn Broken CMA has provided advice and guidance to the Rumbalara Aboriginal Cooperative as they develop business involved with both honey production and cut flowers.</p> <p>The Goulburn Murray Resilience Strategy was completed in June 2020 and is being implemented under the direction of the GMID Resilience Taskforce. The strategy is a response to the macro drivers of change that are impacting on the GMID - both positive and challenging. Activities from intervention areas underway in 2021-22 include the circular economy, ARC project and community leadership.</p>

Long-term strategy implementation progress	2021-22 performance
Priority: Balance water availability for all uses	
<b>Water for the environment</b>	
<p>Goulburn Broken CMA continued working with delivery partners and the community to maximise environmental benefits of operational deliveries, such as using inter-valley transfers (IVT) to meet lower Broken Creek environmental flow objectives. Seasonal water proposals were prepared for each of the six years (from 2015-16 to 2020-21). Environmental water delivery began in the Broken River and mid Goulburn River in 2017-18, and upper Broken Creek in 2015 to manage poor water quality. Environmental water deliveries were managed to minimise impact on Cod opening each year.</p>	<p>Eight SIR wetlands receive environmental water (see table on page 49). Key SIR wetland achievements include:</p> <ul style="list-style-type: none"> <li>— delivery of environmental water to Barmah-Millewa Forest, Kanyapella Basin, Loch Garry, Black Swamp, Kinnairds Wetland, Black Swamp, Gaynor Swamp, Doctors Swamp and Moodie Swamp</li> <li>— three private wetlands continued to receive water managed by the Murray-Darling Wetlands Working Group and</li> <li>— environmental water was delivered down the upper Broken Creek, lower Broken Creek, Broken River and Goulburn River.</li> </ul> <p>Total amount of environmental water delivered in 2021-22 was about 524 gigalitres plus an additional IVT volume of around 520 gigalitres.</p> <p>Lower Goulburn River and lower Broken Creek inter-valley transfer impacts were monitored and responses pursued. See also Waterways section for details.</p> <p>Goulburn Broken CMA continued to influence processes around rehabilitating legacy and abandoned quarries.</p>
<b>Water for agriculture</b>	
<p>Understanding water availability and how it interacts with farm and regional viability and the environment is a key challenge for the regional community. There continues to be many reviews and discussions at the basin, state and regional level.</p> <p>Government incentive programs have helped irrigators adapt as the social-ecological system transforms to a future with less water. For example, 600 projects implemented through the 2010 to 2018 Farm Water Program improved water-use efficiency and productivity over 70,000 hectares and saved over 80 gigalitres of water.</p>	<p>Demand for advice in relation to groundwater use and management declined during 2021-22 as a result of high surface water allocations. AgVic extension staff continue to provide support to irrigators around the use and risks of using groundwater resources through the whole farm planning program.</p> <p>The updated Northern Victoria Irrigation Development Guidelines are now in operation.</p> <p>Useful water information links were added to the Sustainable Irrigation Program part of the Goulburn Broken CMA website.</p> <p>Updated information around water yields for the Goulburn Broken catchment is being considered.</p>
Priority: Adapt by understanding change and impact	
<p>The adaptive process in place since the 1990 SIRLWMP continues to be strengthened by more explicitly linking the long-term condition outcomes sought to the annual workplans through the annual critical attributes risk assessment. SIRPPIC is involved in this process.</p> <p>The use of land and water in the SIR has been rapidly changing in recent years and must be understood to achieve good Natural Resource Management decisions. The GMID Regional Irrigated Land and Water Use Mapping project provides data on land use by industry, such as dairy, cropping, horticulture, and livestock, and on water use (from water use licences).</p>	<p>SIRPPIC assessed the drivers, trends and risks to the five critical risks identified in the SIRLWMP. This annual process provides a way for the community and partners to reach a joint understanding of the current risks and impacts, as well as to identify actions to mitigate, adapt or even transform.</p> <p>The Farm and Environment Working Group has identified a potentially suitable threshold for the SIRLWMP's farm and regional viability critical attribute. This will include two components from the University of Canberra's Wellbeing Survey: financial indicator and wellbeing indicator.</p> <p>Data collection for 2019-20 GMID Regional Irrigated Land and Water Use Mapping was completed (including the analysis of the data).</p> <p>The Goulburn Murray Resilience Strategy was launched in December 2020 with a community driven taskforce established in 2021 to implement the actions from the strategy. The taskforce committee was established in June 2021 and focuses on the priorities moving into the future from a resilience perspective and the five key interventions.</p> <p>A number of conference papers for work undertaken under the SIRLWMP have been peer reviewed and accepted for presentation including at APEN, IAL and ICID.</p>

Long-term strategy implementation progress	2021-22 performance
<p>Priority: Match drainage to meet changed needs, aligning it with modernised irrigation delivery</p>	
<p>Goulburn Broken CMA, GMW and other key catchment partners are jointly implementing drainage management strategies and operational regimes that support future agriculture and protect and enhance the environment.</p> <p>Drainage is tailored to meet varying risks across the landscape, especially for the priority sub-catchments of the 460,000 hectares of irrigable land. Against a 2020 target of 103,000 hectares in the SIR's priority sub-catchments needing drainage, 73,611 hectares of farm, community and regional surface and sub-surface drainage networks have been protected (see figure page 79).</p> <p>Works achieved through the SIRLWMP to 2022 include 792 km of drains built, 3,567 irrigation reuse systems installed, 356 groundwater pumps installed and 335,195 ha of land laser levelled. A salinity-risk website launched in 2018 is increasingly used by farmers to help them understand and manage risks specific to their properties.</p>	<p>Drainage course declaration (DCD)-based hybrid drainage planning and delivery including:</p> <ul style="list-style-type: none"> <li>— Completed extensive landowner engagement, onground survey, engineering review and assessments in the Murray Valley West DCD lower depression, to finalise the proposed extent and works program extended to outfall to Goose Swamp.</li> <li>— Formal gazettal period complete in June 2022 and the formal DCD application process will be prepared following review of any submissions. The DCD works program is expected to occur in the summer of 2022-23.</li> <li>— Landowner engagement to define the final concept design for the Waranga Drainage project is complete. An outfall pump and drain remediation works are scheduled for summer 2022-23, with DCD planning, engagement, design and approval occurring from late November 2022.</li> </ul> <p>Investigation and landowner engagement to further scope future DCD catchments has been progressed.</p> <p>Development of the GMID Drainage Management Strategy is complete. Final partner endorsement underway with anticipated release in early 2022-23.</p>
<p>Groundwater resources in the Goulburn Broken catchment are managed by GMW, supported by partner agencies.</p> <p>Around 990 observation bores in the SIR are monitored annually by GMW, resulting in mapping and assessment of shallow groundwater levels across the Murray Valley, Shepparton, Central Goulburn and Rochester irrigation areas. The maps inform plans for adaptively managing salinity and high watertables.</p>	<p>The successful deactivation of the remaining pumps in the Central Goulburn Irrigation Area marks the completion of the Public Groundwater Pumps Rationalisation Project. In total, 80 pumps have been deactivated, leaving an active network of 36 pumps.</p> <p>A new Power BI based Integrated Management System (IMS) is being developed to incorporate the newly endorsed public pump local operating and receiving water triggers and to support the pump network's future operation.</p> <p>For the SIR monitoring bore network additional observation bores have been identified and adopted into the network to supplement previously destroyed or decommissioned bores. The network also includes the observation bores constructed at Gaynor Swamp late in 2020-21.</p> <p>Shallow groundwater monitoring is currently underway at Gaynor Swamp following an environmental watering event. The even has now concluded, with monitoring happening prior, during and after. This data will be important to show groundwater response and recovery below a wetland receiving environmental water.</p> <p>A scoping document was prepared for the Girgarre Evaporation Basin Future Management Options Study, as well as Terms of Reference for the Project Reference Group. The Project Reference Group has met twice to compile a list of alternative beneficial uses for the site.</p> <p>An updated workplan and issues papers were prepared for the first Project Steering Committee for the SIRLWMP Register Entry Review project. This meeting was held in mid-June to adopt a scope and purpose for the project, following the Victorian Salt Disposal Working Group's support of an 'effort commensurate with risk' approach.</p> <p>Drain water quality monitoring has continued.</p>

Long-term strategy implementation progress	2021-22 performance
Priority: Maintain partnerships and good governance	
<p>The community-based SIRPPIC includes skills, geographic and industry-based representatives from the local community, Goulburn Broken CMA, GMW, AgVic, DELWP, GMLN and Murray Dairy.</p> <p>The Municipal Catchment Coordinator Reference Group is in its 29th year of operation. The group seeks workable and collaborative solutions to improve efficiency and effectiveness of natural resource management delivery in the Shepparton Irrigation Region. Representation includes Moira Shire Council, Campaspe Shire Council, Greater Shepparton City Council and other stakeholders, led by Goulburn Broken CMA.</p> <p>GMW's efficient and adaptive management of regional drainage systems is key to protecting agricultural productivity and the environment. The long-established partnership between Goulburn Broken CMA's Sustainable Irrigation Program and GMW is being reinvigorated by collaborative drainage initiatives.</p>	<p>Goulburn Broken CMA continued supporting SIRPPIC, Farm and Environment and SIR Drainage working groups. Farm and Environment Working Group celebrated its 100th meeting (quarterly meetings). Meetings continued where possible as virtual meetings, and the community and agencies worked collaboratively to make this a possibility, to maintain partnerships and community engagement.</p> <p>SIRPPIC completed their 2021 Performance Evaluation.</p> <p>Work is underway with SIRPPIC to develop the next iteration of their community engagement plan.</p> <p>The Sustainable Irrigation Region Senior Combined Partners meeting continued to provide a great opportunity for integration and collaboration.</p> <p>The development of the Goulburn Murray Resilience Strategy enabled engagement and discussions with community, stakeholders, agencies and industry around the changing landscape, the resilience principles and how the system worked. This will lead to increased focus on the important components of the irrigated landscape.</p> <p>Partner projects remain a strength such as:</p> <ul style="list-style-type: none"> <li>— RiverConnect (including commencement of their strategic review)</li> <li>— groundwater management and monitoring</li> <li>— Follow the Flowers</li> <li>— water quality partnerships</li> <li>— GMID land and water use mapping project and</li> <li>— Municipal Catchment Coordinator reference group (with Moira, Campaspe and Greater Shepparton municipalities).</li> </ul> <p>Goulburn Broken CMA's Municipal Catchment Coordinator:</p> <ul style="list-style-type: none"> <li>— Represented the Goulburn Broken CMA on the Goulburn Broken Greenhouse Alliance (recently changed name to Goulburn Murray Climate Alliance), under a MOU with the Goulburn Broken CMA.</li> <li>— Convened the quarterly meetings of the Goulburn Broken Local Government Biodiversity Reference Group, which consists of all Councils in the Catchment, DELWP, Department of Transport (Regional Victoria) and the CFA. These meetings continued despite COVID-19.</li> </ul>

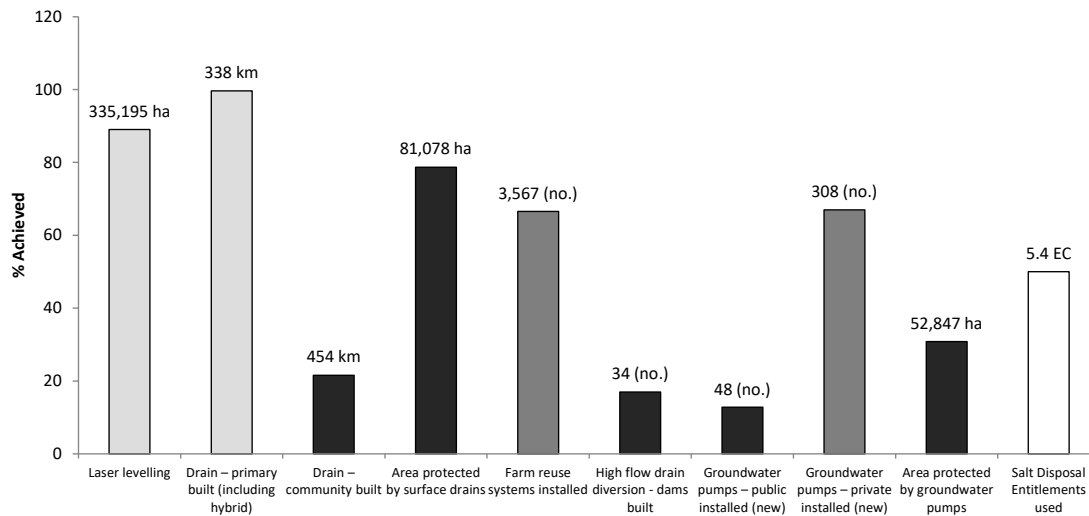
## Actions 2019-20, 2020-21 and 2021-22 (Shepparton Irrigation Region only, incl. Rochester)

Action <sup>i</sup>	From funds received					
	Achieved			Target <sup>ii</sup>	% achieved	
	2019-20	2021-22	2021-22			
<b>Surface water action <sup>iii</sup></b>						
Laser levelling <sup>iv</sup>	ha	7,580	3,676	719	1,365	53
Drain – primary built (including hybrid) <sup>v</sup>	km	17.0	55.0	-	-	
Drain – community built	km	-	-	-	-	
Area protected by surface drains <sup>vi</sup>	ha	4,300	7,467	-	-	
Farm reuse systems installed <sup>vii</sup>	no.	-	-	-	-	
Farm reuse systems installed <sup>vii</sup>	ha	-	-	-	-	
Gravity channel surface irrigation	ha	-	-	-	-	
Pipe and riser irrigation	ha	-	-	-	-	
Irrigation scheduling systems	ha	-	-	-	-	
Pressurised irrigation systems - micro or drip	ha	-	-	-	-	
Pressurised irrigation systems - sprinkler	ha	-	-	-	-	
Irrigation systems - improved <sup>ix</sup>	ha	7,790	4,947	719	-	
<b>Salt disposal entitlements used (SDE)</b>						
	EC	5.4	5.4	5.4	10.8	50
<b>Planning for works action</b>						
Whole farm plans - new	no.	61	25	13	30 <sup>x</sup>	70
Whole farm plans - modernised	no.	56	36	8		
Whole farm plans - new	ha	6,200	3,057	873	-	
Whole farm plans - modernised	ha	8,959	4,294	565		

- i. 'Action' includes actions and outcomes. Several measures were included in this list for the first time from 2014-15, although they were listed elsewhere before. Many actions primarily aimed at achieving salinity targets contribute to other targets, such as those for water quality and biodiversity. Fencing remnant vegetation and revegetation achievements are shown in the table on page 66.
- ii Targets are adjusted as funding is confirmed.
- iii Surface water management enables the removal of excess rainfall runoff from irrigated lands, alleviating soil salinity. As part of an overall management plan for nutrients, nutrients loads are managed by collecting and reusing water from drains. Nutrient loads are monitored against the Goulburn Broken Water Quality Strategy nutrient target for drains.
- iv Assumptions: 50 per cent of area put under Whole Farm Plans. Target = 50 per cent of area to be put under Whole Farm Plans [no. (15) x average area of Whole Farm Plans (91)].
- v Fencing and laneways are relocated along primary drains to control stock. Drains are also hydro-mulched and seeded to provide vegetative cover on bare batters.
- vi Areas actually measured: 2018-19 Muckatah 2/3P CSWMS 630, Upper Deakin DCD 3,700; 2019-20 Cornella Creek Catchment DCD: 4,300; 2020-21 Guilfus Congupna DCD. 2021-22 Nil.
- vii Reuse dams allow for the collection of high nutrient run-off and re-irrigation, reducing the water and nutrient loads leaving the farm.
- viii Measured directly from whole farm plans. This refers to the on-farm delivery system (to get water to the irrigation bays) rather than the area serviced. Includes earthen channels that have been rock or plastic lined or replaced with pipe, with each means assumed to achieve the same water savings.
- ix Assumptions: From 2014-15, area improved = laser levelling (which itself includes an assumption based on whole farm plan area - see footnote iv) + pressurised irrigation systems (micro or drip + sprinkler). In 2019-20, area improved included 210 ha of soil moisture monitoring and 2020-21 included 1,033 ha.
- x Combined target for the number of new and modernised whole farm plans.

## SIR Land and Water Management Plan's 1990-2022 target achieved, %<sup>i</sup>

(achievements listed on top of each bar)



i. The method to set the cumulative target was modified in 2012-13 to be: 1990-2020 plan target multiplied by the number of years since 1990 divided by 30.

## What's next?

### Communities and partnerships

The SIR community has risen to the challenges presented in 2021-22 and has been adapting, responding and transforming the way we do things.

The SIRLWMP 30-year achievement summary showed how important community driven action is as well as a long-term focus, action and trust between all the partners. During 2022-23 the SIRLWMP will be updated with the support and involvement of the community, partners and governments. Major actions in 2022-23 planned are:

- renewal of the 30-year SIRLWMP with the community building on the resilience approach
- support implementation of the Goulburn Murray Resilience Strategy
- stronger work relationships with indigenous groups, particularly around the water roadmap
- support and contribute to the new One Basin Cooperative Research Centre and
- finalise and implement the engagement and communications plan including new opportunities and ways of doing things.

### Water availability

#### Coordination and Works

- continue advocating the region's perspective in state and Murray-Darling Basin water policy sphere, such as the need for:
  - improving water efficiency on farms balanced and fair water sharing e.g. constraints, Barmah choke, IVT, carry over etc.
  - strong links to the community driven SIRLWMP
- continue to build upon indigenous-led involvement in water management and
- provide farmers and agribusinesses opportunities to understand and optimise water availability.

### Investigations and Information

- improve community and partner understanding and access to water information to help decision-making i.e. through the Our Water Futures project
- provide input into monitoring of new operational rules for the Goulburn River
- review the 880 gigalitres threshold of the water for agriculture critical attribute (including impacts from climate change)
- improve understanding of ecological responses to environmental watering
- continue investigating the damage from inter-valley transfers of water to the Goulburn River and lower Broken Creek
- support and integrate into the SIRLWMP the many drought resilience programs that are now becoming available across the landscape
- proactively pursue the next iteration in water efficient systems and the greater productivity capacity of new systems
- investigate the alignment with the opportunity from land that is now less irrigated and may benefit from incentives with carbon, renewables or nature covenants and
- better understanding of run-off rates with drying climate / soil profile and native veg interactions.



## **Watertables and water quality**

### **Coordination and Works**

- continue to implement DCD-based hybrid drainage system projects: the Murray Valley West DCD and Waranga Drainage project
- monitor newly drilled observation bores around the perimeter of Gaynor Swamp, assess and report watertable and salinity impacts of environmental watering events
- integrate and coordinate water quality programs across the region
- engage and align programs with the EPA's general environmental duty approach
- include water quality as part of the next Waterway Strategy
- facilitate water quality coordination across Goulburn Broken CMA program areas and with regional partner agencies.

### **Investigations and Information**

- create and adapt programs that respond to changing needs and risks by:
  - storing and making accessible the vast knowledge about watertables, catchment hydrology and hydrogeology
  - develop an integrated management system for the management of the Public Groundwater Pumps, following the network rationalisation, and
  - investigate long-term options for the deactivation or alternative beneficial use of the Gigarre Evaporation Basin (including deactivation trial options)
- implement the GMID Drainage Management Strategy
- undertake investigative work to target DCD-based drainage opportunities in other SIR priority catchments; including opportunities to apply DCD-based approaches to achieve integrated drainage, environmental and cultural benefits
- continue developing ways to improve on-farm and off-farm drainage
- continue and enhance watertable and water quality monitoring to inform program delivery and regional obligations
- contribute to MDBA's Basin Salinity Management Strategy
- review water quality targets and management response
- continue to develop GIS Story maps to communicate the successful DCD works programs and
- investigate impacts of climate change and weather on water quality.

## **Native vegetation extent**

- improve integration of native vegetation into delivery of the whole farm plan incentive scheme
- continue to advocate for the need for a Goulburn Broken Biodiversity Fund
- continue advocating for improvements to protection of native vegetation under the planning scheme
- continue facilitating partnerships and funding opportunities to discuss increasing native vegetation extent in the SIR
- seek opportunities for improving understanding of native vegetation extent across the region and
- ensure Goulburn River health (including streambanks) is not compromised when water is provided to supply downstream demand.

## **Farm and regional viability**

### **Coordination and Works**

- implement the Goulburn Murray Region Resilience Strategy with regional partners
- continue to expand on the Agricultural Redevelopment Coordinator (ARC) project particularly in the area of data and information availability
- understand and communicate the implications of changing water use, ownership and policy changes
- continue to share the importance and learnings from the Land and Water Use Mapping for the GMID and value-add project opportunities
- assist irrigators involved with the GMW Water Efficiency Project (WEP) to make informed decisions through whole farm planning
- continue to work with and assist indigenous groups who own agricultural land
- investigate opportunities to develop collaborative projects that support a circular economy
- continue to respond to increased demand for irrigation / energy efficiency assessments of pressurised irrigation systems and refine the energy assessment tool to meet these requirements and
- refine and implement the earthworks planning exemption process with local government and referral authorities.

### **Investigations and Information**

- continue to assist indigenous groups develop agribusiness opportunities
- continue to work with universities, regional agencies and industry bodies and the community to bring together the knowledge, effort and funding to improve the resilience of the region
- build on the work from across the world on the use of brackish water to produce high value crops and access the previously untapped poorer quality water and
- bring the energy and food production nexus thinking to the irrigated landscape, circular economy, reduced waste and increased use of the systems.

# Human resources (including occupational health and safety)

Compiled by: Kate Montgomery, Caitlin Baker and Mary Dimit.

## Long-term and annual scorecard

2021-22 performance	On target			
Organisation condition <sup>i</sup>	1990	2022	Long-term risk	Long-term strategic implementation
	n.a.		LOW	Late

i. Appendix 1 describes the analytical framework. Ratings legend is inside front cover.

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

2019-20	2020-21	2021-22	2022-23 <sup>ii</sup>
5,995	6,108	6,391	7,258

- i. Excludes board and support committees. These are costs rather than investments. Costs are embedded within other investment areas.
- ii. Forecast is based on the Corporate Plan 2022-23.

### Major strategic references

The Goulburn Broken Workforce Strategy and related action plans integrate direction and guidance from legislation, state and federal policy and plans at national, state, regional and local levels. Appendix 5 includes a more complete list.

### Background

Goulburn Broken CMA fosters a workforce that is committed to authentic leadership, industry leading expertise and nurturing growth, curiosity and respect for our colleagues, the community and the environment.

Our culture represents these values through the sustained commitment to developing and investing in our people and encouraging innovation and adaptability to respond to opportunities as they present. Goulburn Broken CMA continues to invest in providing a modern work environment and flexibility to provide a contemporary work experience for our workforce.

Goulburn Broken CMA demonstrates a holistic commitment to providing a healthy workplace by supporting and providing proactive employee-led initiatives and maintaining a focus on both the physical and mental wellbeing of our people and partners.

We have continued to align our workforce capabilities and design to support the achievement of the Regional Catchment Strategy's vision and provide meaningful outcomes for our people, the community and the environment.

### Organisation condition

The People Matter Survey 2021 results indicate the healthiness of the workforce with strong results above comparators in the areas of respectful behaviour, maintaining public trust and providing a healthy and safe workplace. Results however indicated that workload and stress have resulted in an increase in negative responses and this was a focus for 2021-22.

Goulburn Broken CMA was able to offer nine Higher Duties/ Acting opportunities throughout the year, a 4 per cent increase on the previous year, amongst other professional

development initiatives. Despite the ongoing impacts of the COVID-19 pandemic, absenteeism continued to remain below pre-COVID-19 levels. The organisation continues to see stability in its workforce with 77 per cent of employees having worked with the organisation greater than five years, however 2021-22 saw voluntary turnover increase to 15.4 per cent (including end of contract).

Workforce data for the current and previous financial years is contained in the tables on pages 90 and 91.

### Long-term strategy implementation progress

#### Human Resources

The Goulburn Broken CMA Workforce Strategy and supporting action plans directs strategic priority projects and opportunities for enhancing the Goulburn Broken CMA employment value proposition. The current strategy has now reached its planned completion date and progress on its review is underway.

#### Occupational Health and Safety

The safety and wellbeing of employees is of the highest priority for the Board, CEO, management and the Occupational Health and Safety (OHS) committee. Goulburn Broken CMA's OHS procedures and practices are based on the model of continuous improvement. The OHS Committee continue to review and update the OHS risk register and controls, investigate incident and hazard reporting and undertake analysis of new or emerging OHS issues and opportunities.

In 2021-22 we released our new Incident and Hazard dashboard providing real time data to all managers and staff on reported issues and continued to maintain the priority of safety as a key element in management and workgroup planning and review.

## 2021-22 Human resources performance

The 2021-22 year saw a continuation of support for employees and the organisation with the ongoing impacts of the COVID-19 pandemic. Significant resources continued to be required to manage the ongoing work from home arrangements, attempts to return to offices, maintain conditions and wellbeing of employees through uncertainty and provide guidance on often complex information regarding how we could work. The requirement for the organisation to implement Mandatory COVID-19 Vaccinations requiring further resourcing to guide the organisation and employees through this.

Key activities are described below.

### Governance

The Goulburn Broken CMA Enterprise Bargaining Agreement remains in place.

2021-22 was the first year for Goulburn Broken CMA to have requirements under the *Gender Equality Act*. Via a shared approach with three other CMAs, the organisation undertook consultation and developed its inaugural Gender Equality Action Plan. Once approved by the Gender Equality Commissioner implementation of the action plan will commence.

The Goulburn Broken CMA flexible work framework continued to be implemented in 2021-22, although due to ongoing pandemic restrictions saw a delay in trailing of these arrangements.

### Attraction and recruitment and labour supply and agility

In 2021-22 we welcomed eight new employees and farewellled nine employees. This turnover allowed the opportunity for acting assignments whilst position reviews were undertaken and the attraction of new talent to the Goulburn Broken CMA team. Following on from the success of the Drought Employment and Working For Victoria employment programs, the organisation was successful in receiving funding under the Youth Employment Program to engage three new employees in fixed term positions across several program areas. The Program was a great success with shared learnings for both the participants and their managers.

## Capability building

### Diversity and Inclusion Action Plan 2017-2022

Strategic Priority	% completed
Use an 'equity lens' in the review of all policy and procedures.	82
Continue to strive to achieve gender equity in our recruitment, succession planning and professional development opportunities.	84
Build our capacity to be inclusive of cultural diversity	57
Maintain, strengthen and support talented Indigenous staff and Indigenous partnerships.	100
Ensure that our workplace is accessible and adaptable to support current and future employees with disabilities	60
Achieve a communication standard that uses inclusive language that is respectful of LGBTI people in the workplace.	100
Provide a workplace that supports people entering, developing, enhancing and exiting their career journey.	91

Goulburn Broken CMA has continued to provide good quality and diverse learning and development experiences for employees. In 2021-22, 52 employees participated across 12 formal knowledge sharing sessions delivered by employees for their peers. Topics for these sessions included: the Protective Marking Scheme, GoulburnMurray Trade Rule Review and People Matter Survey Data summary.

Employees also completed the practical assessment of their First Aid training, managers participated in OHS Manager Training provided by our WorkCover insurer and 32 staff completed Defensive Driver Training.

### Participation and motivation

Goulburn Broken CMA has continued to support workplace flexibility, and this continues to be a highly valued attribute by staff with 63 per cent of staff having formalised flexible arrangements – a five per cent increase. The organisation continued to support employees balance work and life demands including continuing to support three parents who have returned to work from parental leave, and ten staff access long service leave.

### Supporting our community

Goulburn Broken CMA has continued to support a community leader to undertake the Fairley Leadership program via the Ken Sampson Scholarship program with one employee and one scholarship recipient participating in the 2022 program.

### Diversity and inclusion

2021-22 saw the final year of implementation for the Goulburn Broken CMA's Diversity and Inclusion Plan and the development of the inaugural Gender Equity Action Plan (GEAP).

Initiatives completed during 2021-22 were largely the collection of data to measure progress on the aims of the Diversity and Inclusion plan and inform the incoming GEAP. A key deliverable included the offering of Unconscious Bias training to all staff. See table below.

### Our staff

A list of all Goulburn Broken CMA staff employed for all or part of 2021-22 is on page 170.

Strategic Priority	% completed
Total percentage of actions completed	81

### Annualised salary by \$20,000 bands for executives and other senior non-executive staff

Income band (salary) <sup>i</sup>	No. (headcount)
< \$160,000	1
\$160,000 - \$179,999	2
\$180,000 - \$199,999	2
\$200,000 - \$219,999	0
\$220,000 - \$239,999	1

i. Income bands in this table differ from Note 8.4 in the Financial Statements as \$ values are based on salary only, not total remuneration package.

### Other workforce data 2019-20, 2020-21 and 2021-22

	2019-20		2020-21		2021-22		Comments
	no.	%	no.	%	no.	%	
<b>Years of service</b> <sup>i</sup>							
12 months or less	6	11	0	0	5	10	We welcomed new employees in 2021-22 seeing growth with new positions across many program areas.
1-3 years	3	5	8	15	4	8	
3-5 years	7	13	5	10	3	5	
5+ years	39	71	40	75	40	77	
Average length of service, years	9.6		9.5		9.5		
<b>Salary distribution</b> <sup>i&amp;ii</sup>							
<\$40,000	0	0	0	0	0	0	Salary figures continue to increase as a result of EBA increments and new positions in the strategic space.
\$40,000 - 59,999	0	0	0	0	0	0	
\$60,000 - 79,999	17	31	13	25	8	16	
\$80,000 - 99,999	20	36	18	34	23	44	
\$100,000+	18	32	22	41	21	40	
Average Salary <sup>iii</sup>	\$92,650		\$82,247		\$ 90,962		
<b>Qualifications</b> <sup>i</sup>							
Year 12 or less	3	5	2	4	1	2	Qualification levels have remained constant.
Certificate	0	0	0	0	0	0	
Advanced Diploma/Diploma	9	16	8	15	8	15	
Degree	34	63	33	62	32	62	
Postgraduate Degree/Graduate Diploma	9	16	10	18	11	21	

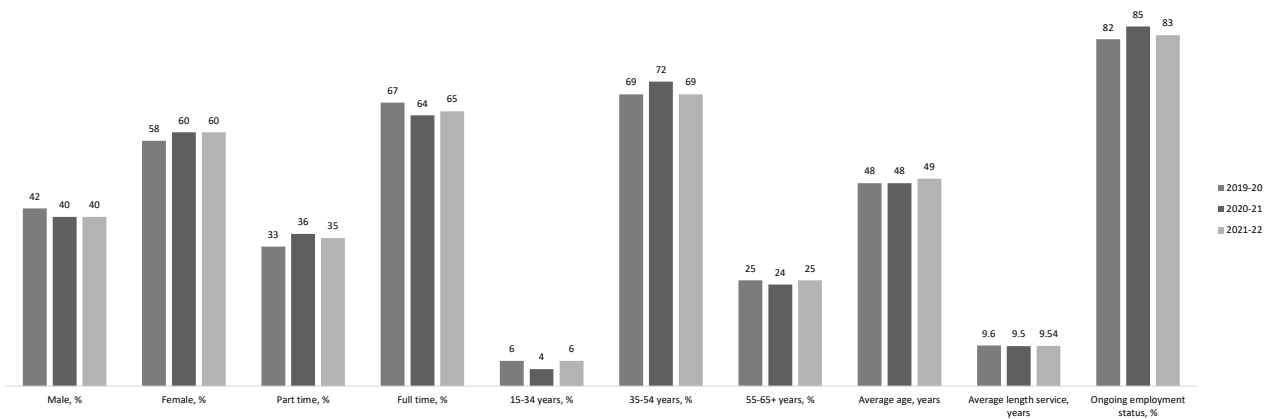
## Comparative workforce data <sup>i, ii</sup>

The following table discloses the headcount and full-time staff equivalent (FTE) of all active employees of the Goulburn Broken CMA employed at the last full pay period in June of the current reporting period (2022) and in the last full pay period in June of the previous reporting period (2021).

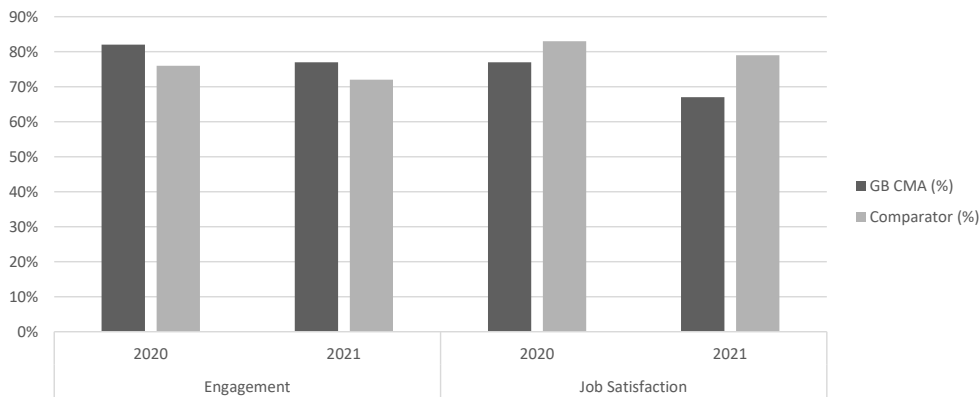
	June 2022						June 2021														
	All employees			Ongoing <sup>iii</sup>			Fixed term <sup>iv</sup> and casual			All employees			Ongoing <sup>iii</sup>			Fixed term <sup>iv</sup> and casual					
	No. (headcount)	FTE		Full time	Part time	FTE	No. (headcount)	FTE		No. (headcount)	FTE		Full time	Part time	FTE	No. (headcount)	FTE		No. (headcount)	FTE	
				No. (headcount)	No. (headcount)								No. (headcount)	No. (headcount)							
Demographic data																					
Gender <sup>v</sup>																					
Male	21	20.5	14	1	14.6	6	5.9	21	20.4	15	2	16.4	4	4.0							
Female	31	26.9	13	15	24.1	3	2.8	32	27.6	13	15	24.0	4	3.6							
Age																					
15-24	0	0.0	0	0	0.0	0	0.0	0	0	0	0	0	0	0							
25-34	3	2.6	0	1	0.8	2	1.8	2	1.8	1	1	1.8	0	0							
35-44	12	11.0	7	5	11.0	0	0.0	15	13.2	8	6	12.4	1	0.8							
45-54	24	21.3	14	7	18.4	3	2.9	23	20.3	12	8	17.5	3	2.8							
55-64	13	12.5	6	3	8.5	4	4.0	13	12.7	7	2	8.7	4	4.0							
65+	0	0.0	0	0	0.0	0	0.0	0	0	0	0	0	0	0							
Classification data <sup>vi</sup>																					
Bands																					
Band 5	3	3.0	2	0	2.0	1	1.0	2	2.0	2	0	2.0	0	0							
Band 6	5	4.4	2	3	4.4	0	0.0	5	4.6	3	2	4.6	0	0							
Band 7	10	9.0	7	3	9.0	0	0.0	13	11.4	7	5	10.6	1	0.8							
Band 8	17	14.7	8	7	13.0	2	1.7	15	12.5	6	8	11.7	1	0.8							
SEO	11	10.3	8	3	10.3	0	0.0	12	11.5	10	2	11.5	0	0							
Program managers	5	5.0	0	0	0.0	5	5.0	5	5.0	0	0	0	5	5.0							
PEER	1	1.0	0	0	0.0	1	1.0	1	1.0	0	0	0	1	1.0							

- i. All figures reflect employment levels during the last full pay period in June of each year.
- ii. Excluded are external contractors/consultants, and temporary staff employed by employment agencies.
- iii. Ongoing employees includes people engaged on an open-ended contract of employment who were active in the last full pay period of June.
- iv. Fixed Term employees includes people engaged on a fixed term contract of employment who were active in the last full pay period of June.
- v. Non-binary data around gender (self-described) has not yet been collected.
- vi. Employees are classified as a Band (1 to SEO) under the EBA. Program managers refers to staff not employed under the EBA.

## Goulburn Broken CMA people profile



## People Matter survey summary results 2021



	2019-20		2020-21		2021-22		Comments
	no.	%	no.	%	no.	%	
<b>Turnover (total)</b>	4	7	1	2	9	17	Turnover in 2021-22 saw several employees take up new career opportunities and reflects the short term Youth Employment Program of less than 12 months.
<b>Turnover (ongoing staff only, % of total turnover)</b>	2	50	0	0	7	78	
<b>Exit interviews completed</b>	2	50	1	100	5	56	
<b>Absenteeism</b>		1.4		1.4		1.7	
<b>Training expenditure (% of employee related expenditure)</b>	\$57,625	1.0	\$91,872	1.5	\$85,764	1.4	

- All employees (excluding terminations and Board/committee members).
- Based on 1.0 FTE full year salary.
- Actual average salary paid including terminations.

## 2021-22 Occupational Health and Safety performance

Occupational Health and Safety has continued to focus on the review of incident and hazard data, employee OHS procedures and supporting documentation and review of the risk register to ensure the safety of our employees.

The 2021-22 focus in response to hazard report data and emerging issues has been:

- Review of our Occupational Violence and Aggression related procedures under the guidance of the State 'Leading the Way' initiative.
- Vehicle Safety.
- Review of safe work instructions and risks for new and existing practises.

— Ongoing COVID-19 risk management.

Wellbeing initiatives offered including:

- flu immunisations, taken up by 50 per cent of employees.
- voluntary skin check program.
- social engagement activities such as A Taste of Harmony, virtual couch catch up, roll and stroll.

The Key Performance Indicators for OHS at Goulburn Broken CMA continues to be included in the quarterly reporting of OHS to the Board and Senior Management team.

Refer also to the 2021-22 Occupational Health and Safety performance table on page 93.

## What's next?

## Human resources

- Implementation of the *Gender Equality Act 2020*.
- Renewal of the Goulburn Broken CMA Workforce Strategy.

## Occupational Health and Safety

- Continued implementation of the VPS Leading the Way OHS Framework.
- Improved planning and reporting of OHS data.

### Occupational health and safety statistics summary

Measure	KPI	2019-20	2020-21	2021-22
Hazards	Hazards reported, no.	4	2	7
	Rate per 100 FTE	8	4	15
Incidents	Total incidents, no.	9	6	11
	Rate per 100 FTE	18	12	23
	Incidents requiring first aid and/or further medical treatment, no.	1	0	1
Claims	No. of Standard claims	0	0	0
	Rate per 100 FTE	0	0	0
	No. of lost time Standard claims	0	0	0
	Rate per 100 FTE	0	0	0
	No. claims exceeding 13 weeks	0	0	0
	Rate per 100 FTE	0	0	0
Fatalities	Fatality claims	0	0	0
Claim costs	Average cost per Standard claim	0	0	0
Return to work	Percentage of claims with RTW plan <30 days	n.a.	n.a.	n.a.
Management commitment	Evidence of OHS policy statement, OHS objectives, regular reporting to senior management of OHS, and OHS plans (signed by CEO or equivalent)	Completed	Completed	Completed
	Evidence of OHS criteria(s) in purchasing guidelines (including goods, services and personnel)	Completed	Completed	Completed
Consultation and participation	Evidence of agreed structure of designated workgroups (DWGs), health and safety representatives (HSRs), and issue resolution procedures (IRPs)	Completed	Completed	Completed
	Compliance with agreed structure on DWGs, HSRs, and IRPs.	Completed	Completed	Completed
	Number of OHS Committee meetings	4	5	5
Risk management	Percentage of internal audits/inspections conducted as planned.	50	75	67
	Percentage of reported incidents investigated	100	100	100
	Improvement Notices issued across the Authority by WorkSafe Inspector	0	0	0
	Percentage of issues identified actioned arising from:			
	- internal audits	50	100	78
- HSR provisional improvement notices (PINs)	n.a.	n.a.	n.a.	
- WorkSafe notices	n.a.	n.a.	n.a.	
Training	Percentage of managers and staff that have received OHS training:			
	- induction	100	100	100
	- management training	100	100	100
	- contractors, temps, and visitors	100	100	100
	Percentage of HSRs trained:			
	- acceptance of role	n.a.	n.a.	n.a.
- re-training (refresher) <sup>i</sup>	20	20	0	
- reporting of incidents and injuries	100	100	100	

i. HSR refresher training is not compulsory but supported where HSRs wish to undertake the training.

# Environmental footprint

## Long-term and annual scorecard

2021-22 performance On target

Organisation condition <sup>i</sup>	1990	2021	Long-term risk	Long-term strategic implementation
	●	●	<span style="background-color: #808000; color: white; padding: 2px;">MEDIUM</span>	Early

i. Appendix 1 describes the analytical framework. Ratings legend is inside front cover.

### Government investment, \$000

2019-20	2020-21	2021-22	2022-23 <sup>i</sup>
0	0	0	0

i. Forecast is based on the Corporate Plan 2022-23.

### Major strategic references

Appendix 5 includes a list of relevant state, national and international strategies.

### Background

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

Data collection for greenhouse gas emissions calculations commenced in 2006-07 and is used as a base year for reporting and comparisons.

Reporting is guided by the Victorian Government’s Financial Reporting Directions 24D and in line with current carbon accounting practices.

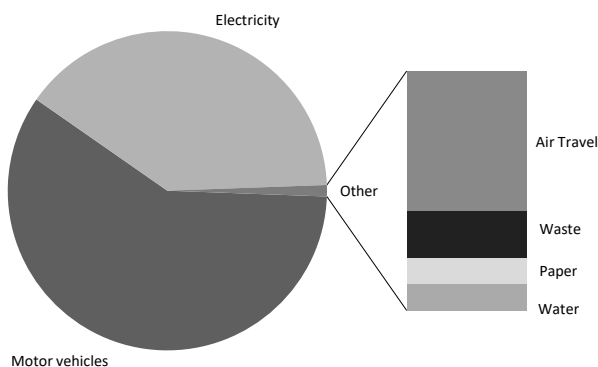
### Organisation condition

The table on page 95 summarises the greenhouse gas inventory, including direct emission sources such as vehicle fleet fuel and indirect sources such as purchased electricity, business travel and waste.

### Long-term strategy implementation progress

Since the initial data collection in 2006-07, the Authority’s overall emissions report shows a downward trend with continued improvements in energy use and vehicle emissions (the Authority’s biggest greenhouse gas emissions sources), waste management and paper use.

2021-22 Emissions by source activity



### 2021-22 performance

Total emissions fell again during 2021-22, the result of reduced travel and power emissions. Total greenhouse gas emissions for the year were 63 per cent below 2006-07 levels. Emissions per FTE fell to 4.8 t CO<sub>2</sub>e continuing the downward trend and were close to a third the 2006-07 levels. Overall, the Authority continued to exceed its original target of 20 per cent reduction in levels of emissions from 2006-07.

Electricity emissions were 55 per cent below 2006-07 levels, with lower consumption during 2021-22 due to increased staff working from home and the installation of solar panels at the Shepparton office in October 2021. Flexible work arrangements contribute to lower power consumption in all offices through reduced lighting and power requirements.

Vehicle fleet emissions continued the downward trend. While part of this may be attributable to reduced travel due to COVID-19, there has also been a significant culture shift in vehicle use. Increased use of technology for virtual meetings where face-to-face meetings are not required and formal introduction of flexible work arrangements (with many staff working from home up to several days per week) has resulted in significantly less kilometres travelled compared to previous years. The ongoing management decision to preference hybrid/petrol vehicles over diesel vehicles where practical combined with improved fuel efficiency and lower emissions vehicles continued the trend of reduced emissions per 1,000 kilometres compared to previous years. Total emissions from vehicles were 66 per cent below 2006-07 levels.

Paper use also continued the downward trend to approximately 2 A4 equivalent reams per FTE, which was 86 per cent below the 2006-07 level of 14.2 reams per FTE.

Flight emissions were again very low with many conferences and meetings undertaken virtually, reducing the need for air travel.

Water and waste do not contribute significantly to Goulburn Broken CMA’s environmental footprint. Water use remains consistently low. The 2021-22 waste audit showed a significant rise in waste to landfill per FTE with a reduction in percentage of waste recycled (down from 88 per cent to 70 per cent) and a continued high rate of recycling in the waste stream (almost 50 per cent) compared to the previous audit in 2018-19. Anecdotally, this may reflect changed staff habits and the reluctance of staff to handle waste due to COVID-19 considerations. Soft plastic recycling was introduced with the support of staff members. Overall however, the emissions from waste remain a very small component of the total emissions.

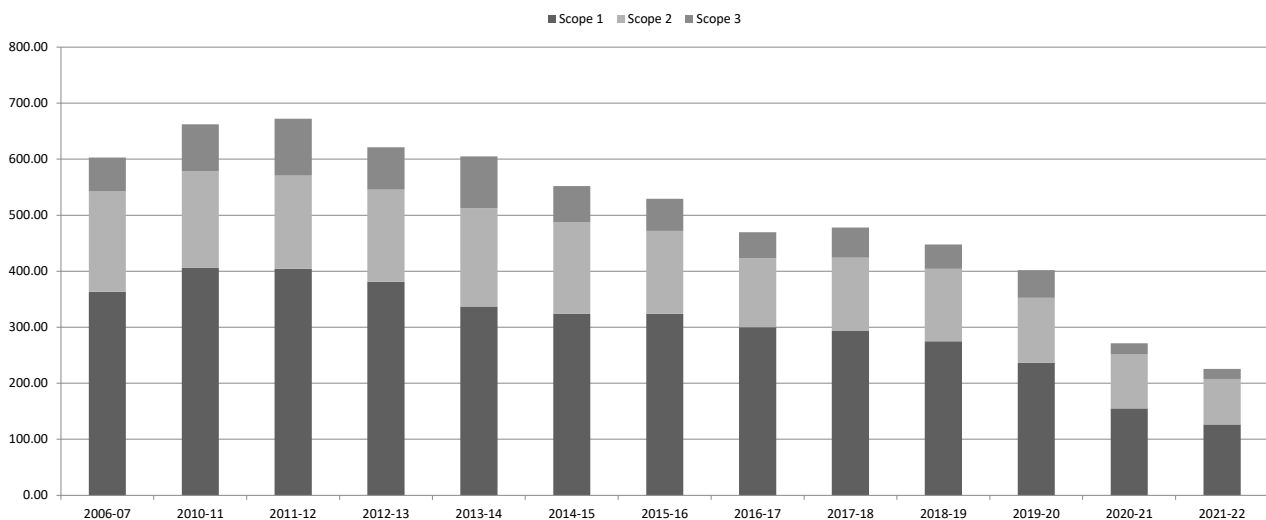


## Office-based environmental impacts reporting

Sustainability report	2006-07 (base year)		2020-21		2021-22	
	Consumption	GHG emissions (t CO <sub>2</sub> -e)	Consumption	GHG emissions (t CO <sub>2</sub> -e)	Consumption	GHG emissions (t CO <sub>2</sub> -e)
<b>Direct emissions (Scope 1)</b>						
Petrol for vehicles (L)	74,711	171	23,686	55	39,102	91
Diesel for vehicles (L)	66,127	178	36,855	100	13,278	36
LPG for vehicles (L)	8,936	14	-	-	-	-
Distance travelled by fleet vehicles (km)	Not avail.		1,040,332		976,807	
<b>Total Scope 1</b>		<b>363</b>		<b>155</b>		<b>127</b>
<b>Indirect emissions (Scope 2)</b>						
Electricity (kilowatt hour)	147,930	179	98,751	97	84,484	81
<b>Total Scope 2</b>		<b>179</b>		<b>97</b>		<b>81</b>
<b>Optional emissions (Scope 3)<sup>i</sup></b>						
Electricity (transmission & distribution losses) (kWh)	147,930	22	98,751	10	84,484	8
Flights (km)	Not avail.	-	938	0	6,336	2
Waste - landfill (kg)	8,680	9	129	0	336	1
Water consumption (kL)	Not avail.	-	459	1	123	0
Paper consumption (reams)	514	2	100	0	75	0
Petrol (extraction, production, etc.) (L)	74,711	14	23,686	3	39,102	5
Diesel (extraction, production, etc.) (L)	66,127	13	36,855	5	13,278	2
LPG (extraction, production, etc.) (L)	8,936	1	-	-	-	-
<b>Total Scope 3</b>		<b>61</b>		<b>20</b>		<b>18</b>
<b>Total Scope 1 + 2</b>		<b>542</b>		<b>252</b>		<b>208</b>
<b>Total Scope 1 + 2 + 3</b>		<b>603</b>		<b>272</b>		<b>226</b>
Offsets purchased (% air travel)	Not avail		0		15	

- i. 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 (e.g. transmission and distribution losses) not covered in Scope 2. Reporting of Scope 3 emissions is optional under the international Greenhouse Gas Protocol.

### Goulburn Broken CMA emissions - t CO<sub>2</sub>-e



## Governance

Compiled by Eileen Curtis, Shannon Crawford and Kate Brunt.

### Long-term and annual scorecard

2021-22 performance	On target			
Organisation condition <sup>i</sup>	1990	2021	Long-term risk	Long-term strategic implementation
	n.a.		<b>MEDIUM</b>	Watch & adapt

i. Appendix 1 describes the analytical framework. Ratings legend is inside front cover.

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

2019-20	2020-21	2021-22	2022-23 <sup>ii</sup>
1,566	1,488	2,200	1,647

i. The approach to calculating Governance was revised in 2020-21 and prior years were recalculated for consistency.

ii. Forecast is based on the Corporate Plan 2022-23.

### Major strategic references

The Goulburn Broken Corporate Plan 2021-22 to 2025-26 outlines the business undertakings and objectives for the relevant four years. It provides a summary of activities to be undertaken over the next 12 months to contribute to the achievement of objectives. Appendix 5 includes a more complete list of legislation and policies that apply.

### 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 Goulburn Broken CMA's governance practices.
- Goulburn Broken CMA's performance of statutory responsibilities as an employer and a Victorian State Government Authority.
- Performance against key performance indicators listed in Goulburn Broken CMA's Corporate Plan.
- What's next? (strategic priorities over the next 12 months)

### Description of Governance investment area

This enabling program exists to ensure that Goulburn Broken CMA continues to fulfil its statutory and corporate functions; 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 processes 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.
- Optimum information management systems are in place to allow Goulburn Broken CMA to undertake, record, communicate and report on its business activities undertaken throughout the catchment.
- The environmental footprint is minimised.
- Goulburn Broken CMA 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.
- An optimum corporate structure commensurate to its program funding acceptable to all stakeholders and the community at large.
- Governance standards are communicated to the community to ensure that Goulburn Broken CMA maintains its social licence to operate.

### 2021-22 performance

The performance of the Governance investment area is described comprehensively through the Business and Financial Report sections.

### What's next?

Key areas of the focus for business improvement in 2022-23 will be:

- Integrate systems and review processes and services to enable a high standard of financial management and governance with focus on data analytics and reporting.
- Implement and renew the Goulburn Broken CMA workforce strategy.
- Continue to implement the Goulburn Broken CMA Flexible Work Framework and *Gender Equality Act* Action Plan.
- Implementation of updated Procurement and Contract Management Framework.
- Review and Implementation of Information Management Framework.
- Embedding of the updated Risk Framework and processes across the business.

## Goulburn Broken CMA's legislative and funding context

Refer to 'Objectives, functions, powers and duties' below for the legislative context.

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

Costs that enable Goulburn Broken CMA to fulfil its core corporate obligations are partly 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.

\$18.9 million of Goulburn Broken CMA's funding was sourced from Regional, Victorian and Australian Governments in 2021-22. It is estimated that the regional community contributes (in-kind and via products and services) between 1 to 1.5 times the governments contribute.

All works undertaken are in line with State, Murray-Darling Basin and National strategies.

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

Goulburn Broken CMA has responsibilities under two Statements of Obligations, one under the *Catchment and Land Protection Act* (for obligations under that Act) and another under the *Water Act* (for obligations under that Act). The statements are available under About Us on the Goulburn Broken CMA website [www.gbcma.vic.gov.au](http://www.gbcma.vic.gov.au)

### ***Catchment and Land Protection (CaLP) Act 1994***

The responsibilities of 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 June each year.
- Comply with the Statement of Obligations.

### ***Water Act 1989***

Under the *Water Act 1989*, 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's corporate governance practices

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

## Planning Framework

Goulburn Broken CMA's planning framework is described within the 'Regional Catchment Strategy, resilience and climate change' section on page 24.

## Financial management compliance attestation statement

I, Helen Reynolds, Chair of the Board of the Goulburn Broken Catchment Management Authority, on behalf of the Responsible Body, certify that the Goulburn Broken CMA has no Material Compliance Deficiencies with respect to the applicable Standing Directions under the *Financial Management Act 1994* and Instructions.



Helen Reynolds

Chair

25 August 2022

## 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 land management, water resources management and the water industry, waterway management, environment or natural resources management, primary industry, strategic or business planning and financial management.

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



### Helen Reynolds - Chair

Helen has lived and worked in the Goulburn Broken catchment for over 25 years. Over the past 20 years Helen and her partner Craig have built an innovative and productive broadacre irrigated cropping business at Congupna. Prior to that Helen worked in public and not-for-profit sector roles in agriculture, landcare and land management.

Helen holds an Honours degree in Science and is a Member of the Australian Institute of Company Directors.

Helen is passionate about sustainable land and water management and nature conservation.



### Adrian Weston – Deputy Chair

Adrian, who previously ran a dairy farm, owns and operates an irrigated prime lamb and cropping farm enterprise at Rushworth. He is also a Campaspe Shire councillor, representing 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 the 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.



### Ron Harris

Ron is an agricultural scientist who is a farmer at Nagambie, supplying a branded grass fed beef program. He has held executive roles in the Department of Agriculture covering agricultural service delivery, natural resource management, biosecurity and emergency response and recovery.

Ron is currently chair of the Victorian Cattle Compensation Advisory Committee which recommends the expenditure of levy funds to the Minister for Agriculture. He is also chair of the Mid Goulburn branch of the Grasslands Society. He has lived in the Goulburn Broken catchment for over 40 years.



### Sarah Parker

Sarah holds a Masters in Agriculture and Rural Development and a Bachelor of Leisure Management. She is a graduate of the Australian Institute of Company Directors, National Farmers Federation Diversity in Agricultural Leadership Program and Victorian Climate Smart Agriculture Fellowship Program. She has experience in executive and management roles in agriculture, extension and research, community development and education. Sarah has been a partner in an irrigated dairy farm at Undera, in the Goulburn Valley, since 2004. She is involved in Australian Women in Agriculture, National Rural Women's Coalition, Australian Dairy Collective, Victorian Farmers Federation and National Farmers Federation. Sarah values a sustainable future for agriculture and the environment and is enthusiastic about the next generation becoming more involved in natural resource management.



### Leanne Miller

Leanne is a Dhulanyagen Ulupna woman of the Yorta Yorta people. She is an experienced director with a history of working in government, non-government and social organisations.

She is skilled in governance and leadership in non-profit organisations, corporate social responsibility, program evaluation, conflict resolution and culture change. Leanne is a Senior Atlantic Fellow for Social Equity and works as Principal Adviser Indigenous Workforce Development at RMIT University. She has extensive experience advocating for and building opportunities with women in business including in environmental management and tourism.

Leanne is chair of the Outback Academy Australia, a Victorian Women's Trust board member, a Victorian Women's Benevolent Trust – Dugdale Trust for Women and Girls trustee, a member of Koorie Women Mean Business and elected as a North East Member of the First Peoples Assembly of Victoria.



### **Les McLean (from 1 October 2021)**

Les is an experienced board director and executive with a strong financial background as CFO with more than 20 years management and leadership experience in the Victorian water industry and health sector. Les holds particular expertise in finance (FCPA), governance (GAICD), strategic planning, risk management and stakeholder engagement.

He was previously a board director of the Port Phillip and Westernport CMA and currently holds the position of Executive Officer of the Natural Resources Conservation League of Victoria and its associated environmental philanthropic trust.



### **Amanda McClaren (from 1 October 2021)**

Amanda is passionate about regional development, community, food and fibre production, youth and their education.

As chair of Regional Development Australia for the Hume Region and an emeritus mayor of Strathbogie Shire, she worked alongside her fellow councillors and community to build flourishing communities in the Strathbogie Shire and wider Hume region.

Having lived on her farm at Graytown for the past 16 years, Amanda and her husband Ian have built a small-scale poultry business supplying their pasture raised chickens to discerning customers throughout Melbourne and regional Victoria.



### **Jodie Smith (from 1 October 2021)**

Jodie is a Senior Assessor for CPA Australia and previously worked as an accountant in public practice for the past 16 years. She holds qualifications in economics, accounting, agriculture and animal science, is a Fellow Certified Practising Accountant (FCPA) and is a graduate of the Australian Institute of Company Directors (GAICD).

Jodie maintains an affinity to rural communities, being a board director of Rochester and Elmore District Health Service for the past five years and is a part of an irrigated cropping farm with her partner Nathan, in the Catchment area. Jodie has an interest in how we can better maintain our environment and the role that agriculture plays in ensuring our natural resources are maintained for future generations.



### **Jan Boynton (to 30 September 2021)**

Jan runs a cattle stud and cereal crop and grain business with her partner. Her professional experience includes executive roles at Be.Bendigo (Business Council), Central Goldfields Shire Council, Castlemaine District Community Health, Regional Development Victoria (Loddon Mallee Region), City of Greater Bendigo, Department of Natural Resources and Environment and the North Central CMA. She is on the boards of Haven; Home, Safe; Bendigo Art Gallery; and the Bendigo Jockey Club. She holds a Bachelor of Town and Regional Planning and an Australian Institute of Company Directors course diploma.



### **Sam Lolicato (to 30 September 2021)**

Sam is an agricultural scientist who farms apples and other irrigated crops near Tatura. He has extensive agricultural industry knowledge and experience gained through working in and with communities in northern Victoria and southern NSW. He is involved with local community and grower groups and is interested in initiatives that achieve a balance between environmental, social and economic production considerations.

## Board members and meeting attendance 2021-22

Name	Position	Term	Attended	Eligible to attend
Helen Reynolds	Chair	1 July 2021 to 30 June 2022	11	11
Adrian Weston	Deputy chair	1 July 2021 to 30 June 2022	11	11
Ron Harris		1 July 2021 to 30 June 2022	11	11
Sarah Parker		1 July 2021 to 30 June 2022	11	11
Leanne Miller		1 July 2021 to 30 June 2022	10	11
Sam Lolicato		1 July 2021 to 30 September 2021	3	3
Jan Boynton		1 July 2021 to 30 September 2021	3	3
Les McLean		1 October 2021 to 30 June 2022	8	8
Amanda McClaren		1 October 2021 to 30 June 2022	6	8
Jodie Smith		1 October 2021 to 30 June 2022	6	8

## Board Committees

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

The members of the Audit, Risk and Compliance Committee in 2021-22 are detailed in the table below.

The responsibilities of the Audit, Risk and Compliance Committee are set out in Standing Direction 3.2.1.1.

Key responsibilities of the Audit, Risk and Compliance Committee are to:

- Review and report independently to the Board on the annual report and all other financial information published by Goulburn Broken CMA.
- Assist the Board in reviewing the effectiveness of Goulburn Broken CMA's internal control environment covering:
  - effectiveness and efficiency of operations
  - reliability of financial reporting
  - compliance with applicable laws and regulations.
- Determine the scope of the internal audit function and ensure its resources are adequate and used effectively, including coordination with the external auditors.
- Maintain effective communication with external auditors.
- Consider recommendations made by internal and external auditors and review the implementation of actions to resolve issues raised.
- Oversee the effective operation of the risk management framework.

Members are appointed by the Board, usually for a three-year term, and are subject to the committee's Terms of Reference.

Meetings are held quarterly and at any other time on request of a committee member or the internal or external auditor. In 2021-22, the Committee met five times. Attendance of committee members is detailed in the table below.

### Audit, Risk and Compliance Committee membership and meeting attendance 2021-22

Name	Position	Term	Attended	Eligible to attend
Adrian Weston	Chair, Independent	1 July 2021 to 30 June 2022	5	5
Helen Reynolds (ex officio)	Independent	1 July 2021 to 30 June 2022	3	5
Sarah Parker	Independent	1 July 2021 to 25 November 2021	3	3
Jan Boynton	Independent	1 July 2021 to 30 September 2021	2	2
Les McLean	Independent	28 October 2021 to 30 June 2022	3	3
Jodie Smith	Independent	28 October 2021 to 30 June 2022	3	3
Kerrie Howard	Independent external appointee	1 July 2021 to 30 June 2022	5	5

## Remuneration Committee

To assist the Board, the Remuneration Committee oversees the implementation of the Victorian Government's Remuneration Policy as it applies to the Goulburn Broken CMA CEO and any roles with a significant management responsibility.

The members of the Remuneration Committee in 2021-22 are listed in the table below

### Remuneration Committee membership and meeting attendance 2021-22

Name	Position	Term	Attended	Eligible to attend
Ron Harris	Chair	1 July 2021 to 30 June 2021	3	3
Helen Reynolds (ex officio)		1 July 2021 to 30 June 2021	3	3
Leanne Miller		1 July 2021 to 30 June 2021	3	3
Sam Lolicato		1 July 2021 to 30 September 2021	1	1
Amanda McClaren		28 October 2021 to 30 June 2022	2	2
Sarah Parker		28 October 2021 to 30 June 2022	2	2

## Performance indicators

Performance area	Performance target	2021-22
<b>Business management and governance</b>	Submit annually, a Board performance assessment report according to any guidelines issues.	Report submitted and complied with guidelines issued.
	A risk management framework in place and approved by the Board.	Risk Register is reviewed by the Board at each Board meeting. Risk Management Policy is reviewed and approved by the Board annually.
	One hundred per cent of the CMA's policies and procedures reviewed every three financial years. Full compliance with all applicable Standing Directions under the Financial Management Compliance Framework Checklist.	Ninety-six per cent of policies and procedures updated within the three year target. No material non-compliance with Standing Directions.
	Submit annually, a Board performance assessment report according to any guidelines issues.	Full compliance was achieved.
<b>Regional planning and coordination</b>	A Regional Catchment Strategy (RCS) approved by the Minister.	Goulburn Broken Regional Catchment Strategy was approved by the Minister in 2022.
	A stakeholder and community engagement framework / plan approved by the Board.	Goulburn Broken Community Engagement and Action Plan 2018-20 was approved by the Board and is being implemented. The Plan is currently under review with an updated plan by December 2022.
	A regional Landcare support plan approved by the Board.	Goulburn Broken Community NRM Action Plan 2020-2025 was approved by the Board and is being implemented.
	A regional waterways strategy approved by the minister.	Goulburn Broken Waterway Strategy 2014-2022 was completed and endorsed by the Minister in November 2014 and is being implemented. A review of the Waterway strategy is due to begin in 2024.
	A regional floodplain strategy approved by the Board.	Goulburn Broken Regional Floodplain Management Strategy 2018-2028 was completed and endorsed by the Board in December 2017 and is being implemented.

## Performance indicators (continued)

Performance area	Performance target	2021-22
Regional planning and coordination (continued)	Land and water management plans (LWMP) in designated irrigation areas (or equivalent) approved by the Board.	The SIR LWMP 2016 Review was completed and approved by the Board in August 2016. A review was completed in 2022 and renewal of the plan is currently underway.
	The regional contribution to the annual report on salinity management activities and the allocation and update of salt disposal entitlements is submitted to the Department by 31 July or as otherwise directed by the Department.	The relevant information was provided to the State's reporting and presented to the Independent Audit Group of the Murray-Darling Basin Authority in November 2021.
Regional delivery	Progress with implementation of the RCS (and its major sub-strategies) is reviewed by the board annually.	An implementation plan for the RCS has been provided to the Goulburn Broken CMA Board. The Board receives monthly updates on its progress and more detailed review annually.
	Projects / activities to implement the RCS are delivered and reported according to associated funding agreements.	Planned projects for 2021-22 were delivered and reported according to associated funding agreements, with the exception of the Catchment Partnership Agreement which was delayed due to the delayed approval of the RCS.
	Project activities to implement the regional waterways strategy and the regional floodplain management strategy delivered and reported according to associated funding agreements.	Planned projects for 2021-22 were delivered and reported according to associated funding agreements.
	Projects / activities to implement the LWMP are delivered and reported according to associated funding agreements.	Planned projects for 2021-22 were delivered and reported according to associated funding agreements.

## Strategic organisational measures

Performance area	Performance indicators	Targets	2021-22
NRM results	Catchment objectives are achieved or evidence demonstrates movement towards meeting the objectives.	20 - 30 year objectives for Catchment condition.	On target. See pages 14-19 and 24-32 for further detail.
Client focused	Clients and stakeholders value the services received from the Goulburn Broken 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 Goulburn Broken CMA as a land, water and biodiversity management body.	The 2017 Wallis Community Awareness survey found: <ul style="list-style-type: none"> <li>Those who had been in contact with the CMA gave an average satisfaction rating of 6.6 out of 10 for their experience dealing with them. This was not significantly different to 2012 (6.1).</li> <li>Total awareness of the Goulburn Broken CMA was at a historical high of 86 per cent - an increase of four per cent on 2012 levels.</li> </ul> New survey not undertaken due to reduced funding and a review of the indicators to be completed in 2023.



## Strategic organisational measures (continued)

Performance area	Performance indicators	Targets	2021-22
<b>Operational effectiveness</b>	Projects delivered as planned, aligned to Goulburn Broken CMA strategy, on time, on budget, and to an agreed quality.	Progress against agreed RCS Implementation Plan.	On track.
		Performance against Annual Internal Audit Plan.	All Audits completed per the Internal Audit three year workplan.
		Percentage of projects finished on time and on budget (trend over time, and by service provider).	In 2021-22, standard output targets for program areas have been met for 75 per cent of funding lines during the financial year (39 from 52 funding lines). This compares to 84 per cent in 2020-21.
<b>Financial</b>	Goulburn Broken CMA optimises investment to onground 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).	Ratio of 3.4 FTE employees for every \$1 million of onground works (2.8 in 2020-21).
		Growth in income (incl. proportion of government to non-government).	The total government funded revenue increased by 26 per cent from prior year at \$19 million and accounted for 91 per cent of total revenue. The majority of the increase is due to additional Victorian Government funds in the areas of irrigation drainage works, environmental watering and floodplain management and climate change adaption related projects.
<b>People</b>	Goulburn Broken 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).	7.5/10 recognised at best practice level from Organisational Performance Excellence Review 2015. No new data available, review of Business objectives completed and a review of the indicators is to be completed in 2023.
		Overall job satisfaction (percentage of staff).	As at 2021, 67 per cent of staff were satisfied with their job.
<b>Governance and social responsibility</b>	Governance structures and processes enable the board to professionally and competently discharge their responsibilities to the Catchment community.	Strategy and purpose (Aggregated results from Board assessment).	On track. A review of the Risk Framework, including risk appetite and catchment risk has been undertaken.
		Compliance and Reporting (Aggregated results from Board assessment).	A review of the Business objectives has also been completed and a review of the indicators is to be completed in 2023.

## 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	2021-22 issues and status
<i>Catchment and Land Protection Act 1994</i>	Prepare, coordinate, monitor and review of Regional Catchment Strategy.	Regional Catchment Strategy for 2021-27 was approved on 15 April 2022.
	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.'	2020-21 Annual Report submitted on time and 2021-22 on schedule.
	Corporate Plan to be submitted to the Minister under the <i>Catchment and Land Protection Act 1994</i> by 30 June annually.	Submitted to Minister on 28 June 2022.
	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 Goulburn Broken CMA and are available for inspection.
<i>Water Act 1989</i>	Corporate Plan available for inspection.	The Corporate Plan is available on the GB CMA Public Website
	Review funds at each (monthly) board meeting. Policy for investment as per the Standing Directions 2018.	Cash and Liquidity positions and budget reviewed with Board quarterly.
	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.  Waterway management responsibilities.	Minutes are available through application under Freedom of Information. Goulburn Broken CMA has adopted Governance Guidelines for Statutory Authority Board Members, DELWP model policies and Code of conduct for public sector employees Goulburn Broken CMA was established as a body corporate under the <i>Catchment and Land Protection Act 1994</i> and then established as an Authority under the <i>Water Act</i> with delegated waterway management, floodplain management and drainage functions under Part 10 of the <i>Water Act 1989</i> .
<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. Goulburn Broken CMA and its partners have complied with all requirements.
<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 22 is available under the <i>Freedom of Information Act 1982</i> . See page 97 for Statement regarding level of compliance with Standing Direction.

Act or policy	Board's major tasks	2021-22 issues and status
<p><i>Freedom of Information Act 1982</i></p>	<p>Report requests for access to documents in Annual Report. Report requests at each (monthly) board meeting.</p> <p><i>The Freedom of Information Act 1982</i> (the Act) allows the public a right of access to documents held by the Goulburn Broken CMA (the Authority). The purpose of the Act is to extend as far as possible the right of the community to access information held by government departments, local councils, Ministers and other bodies subject to the Act.</p> <p>An applicant has a right to apply for access to documents held by the Authority. This comprises documents both created by the Authority or supplied to the Authority by an external organisation or individual, and may also include maps, films, microfiche, photographs, computer printouts, computer discs, tape recordings and videotapes.</p> <p>The Act allows the Authority to refuse access, either fully or partially, to certain documents or information. Examples of documents that may not be accessed include: cabinet documents; some internal working documents; law enforcement documents; documents covered by legal professional privilege, such as legal advice; personal information about other people; and information provided to the Authority in-confidence.</p> <p>From 1 September 2017, the Act has been amended to reduce the Freedom of Information (FOI) processing time for requests received from 45 to 30 days. However, when external consultation is required under ss29, 29A, 31, 31A, 33, 34 or 35, the processing time automatically reverts to 45 days. Processing time may also be extended by periods of 30 days, in consultation with the applicant. With the applicant's agreement this may occur any number of times. However, obtaining an applicant's agreement for an extension cannot occur after the expiry of the timeframe for deciding a request.</p> <p>If an applicant is not satisfied by a decision made by the Authority, under section 49A of the Act, they have the right to seek a review by the Office of the Victorian Information Commissioner (OVIC) within 28 days of receiving a decision letter.</p>	<p><b>Making a request:</b></p> <p>FOI requests can be lodged through a written request to the Goulburn Broken CMA's Freedom of Information officer, as detailed in s17 of the <i>Freedom of Information Act 1982</i>. An application fee of \$30.60 applies. Access charges may also be payable if the document pool is large, and the search for material, time consuming.</p> <p>When making an FOI request, applicants should ensure requests are in writing and clearly identify what types of material/documents are being sought.</p> <p>Requests can be emailed to <a href="mailto:foi@gbcma.vic.gov.au">foi@gbcma.vic.gov.au</a> or mailed to:</p> <p>Freedom of Information Officer PO Box 1752, Shepparton, Vic 3632.</p> <hr/> <p><b>FOI statistics/timeliness:</b></p> <p>During 2021-22, the Authority received 1 application.</p> <p>Of these requests:</p> <ul style="list-style-type: none"> <li>— nil were from Members of Parliament;</li> <li>— nil from the media; and</li> <li>— the remainder from the general public.</li> </ul> <p>The Authority made 7 FOI decisions during the 12 months ended 30 June 2022.</p> <ul style="list-style-type: none"> <li>— 1 decisions were made within the statutory 30 day time period;</li> <li>— 1 decisions within an extended statutory 30-45 day time period;</li> <li>— nil decisions within 46 to 90 days; and</li> <li>— 5 decisions in greater than 90 days.</li> </ul> <p>The average time taken to finalise requests in 2021-22 was 89 days.</p> <p>During 2021-22, there were no FOI's subject to a complaint/internal review by OVIC or VCAT.</p> <hr/> <p><b>Further information</b></p> <p>Further information regarding the operation and scope of FOI can be obtained from the Act; regulations made under the Act; and <a href="http://www.ovic.vic.gov.au">www.ovic.vic.gov.au</a>.</p>
<p><i>Public Interest Disclosures Act 2012</i></p>	<p>Report actions in Annual Report. Report actions at each (monthly) Board meeting.</p>	<p>Disclosures of improper conduct by the Goulburn Broken CMA or its employees may be made to IBAC. (See page 109 for information).</p> <p>There were nil reported during 2021-22.</p>
<p><i>Country Fire Authority Act 1958</i></p>	<p>Work with other related organisations to assist in the control, prevention and suppression of fires within the Catchment.</p>	<p>Goulburn Broken CMA has policies relating to waterway operations that comply with the Act and reduce fire risk.</p>

Act or policy	Board's major tasks	2021-22 issues and status
<i>Flora and Fauna Guarantee Act 1988</i>	Conserve the Catchment's communities of flora and fauna and manage potentially threatening processes and educate the community in the conservation of flora and fauna.	Goulburn Broken CMA continues to support the implementation of action statements and recovery plans for threatened flora and fauna by DELWP.
<i>Public Administration Act 2004</i>	Ensure operations of Board comply with Part 5.	<p>Policy and Procedures ensure that obligations and best practice approaches are built into current operations and practices.</p> <p>Goulburn Broken CMA is committed to applying merit and equity principles when appointing staff.</p> <p>The selection processes ensure that applicants are assessed and evaluated fairly and equitably on the basis of the key selection criteria and other accountabilities without discrimination.</p>
<i>Environmental Protection Act 2017</i>	Ensure activities carried out by Goulburn Broken CMA meet the expectations of the General Environmental Duty, including pro-actively minimising harm to human health and the environment from business activities, as well as complying with laws to manage waste and pollution.	Goulburn Broken CMA will revise and update the Environmental Policy to align with expectations under the Act, and review activities to ensure expectations are being met .
<i>Privacy and Data Protection Act 2014</i>	Ensure details of individuals are protected.	Goulburn Broken CMA Privacy Policy outlines how personal information is stored and under what circumstances it can be accessed or released to third parties in accordance with the Act. Requests for access to personal information can be made under the provisions of the <i>Freedom of Information Act 1982</i> .
<i>Forest Act 1958</i>	Liaise with the Department of Environment, Land, Water and Planning as required.	For waterways in areas managed by DELWP under the Act, Goulburn Broken CMA complied with elements of the code which deals with access to waterways and crossings.
<i>Building Act 1993</i>	Comply with standards for the construction and maintenance of buildings.	Goulburn Broken CMA does not own or control any government buildings and consequently is exempt from notifying its compliance with the building and maintenance provisions of the <i>Building Act 1993</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.	<p>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.</p> <p>Goulburn Broken CMA is committed to policies, programs and strategies aimed at delivering culturally appropriate services to all Victorians.</p> <p>Current practices of inclusive and thorough public consultation ensure that all persons who have an interest in investigations are kept informed and have the opportunity to provide input into Goulburn Broken CMA deliberations.</p>
<i>Fair Work (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 enterprise agreement was finalised in 2020.
Government Advertising Expenditure	Relates to the disclosure of government advertising expenditure under FRD 221	Nil issues to report.
<i>Charter of Human Rights and Responsibilities Act 2006</i>	Requires public authorities to act consistently with Charter rights when making decisions, developing policies and providing services.	Goulburn Broken CMA continues to provide information regarding rights and responsibilities to all new staff as part of the induction process.

Act or policy	Board's major tasks	2021-22 issues and status
<i>Equal Opportunity Act 2010</i>	Annual data return reporting gender, diversity and complaints lodged and investigated.	<p>Goulburn Broken CMA is an equal opportunity employer.</p> <p>In 2017 the first Diversity &amp; Inclusion Action Plan was developed for Goulburn Broken CMA.</p> <p>People, Safety and Wellbeing Manager is the contact for any complaints. Nil complaints were received in the reporting period.</p> <p>Of the Goulburn Broken CMA staff, 60 per cent are female and 40 per cent male (see page 91).</p> <p>Of the Goulburn Broken CMA Board members, as at 30 June 2022, 63 per cent are female and 37 per cent male (see page 98).</p>
<i>Statutory Referral and Advice (Planning and Environment) Act 1987, Subdivision Act 1988, Building Regulations 2018, Water Act 1989, Mineral Resources (Sustainable Development) Act 1990</i>	<p>Goulburn Broken CMA has delegated floodplain management functions and is the floodplain management authority under the <i>Planning and Environment Act 1987, Subdivision Act 1988</i> and Building Regulations where various types of application for use and development are referred. Furthermore, functions require direct advice to be provided to any body or person under the <i>Water Act 1989</i>.</p> <p>Goulburn Broken CMA is a referral authority for applications from Department of Jobs, Precincts and Regions (<i>Mineral Resource Act, 1990</i>) for work plans on floodplain areas.</p> <p>Goulburn Broken CMA is referral authority from regional water authorities under section 67 licences for dams on waterways and for permits/licences to landowners to carry out works or activities on waterways.</p>	<p>Goulburn Broken CMA processed 1468 referral and advice applications relating to floodplain management and 82 applications for works on waterways for 2021-22.</p> <p><b>Statutory functions under Part 10 of the Water Act:</b> <i>Target: Ninety per cent of statutory requirements (permits, referrals, advice and licences) associated with waterway and floodplain management are responded to within the prescribed period.)</i></p> <p>In 2021-22, 99 per cent of responses were within the prescribed period.</p> <p><b>Statutory functions under Part 11 of the Water Act:</b> <i>Target: Ninety per cent of statutory requirements (permits, referrals, advice and licences) associated with irrigation management are responded to within the prescribed period.</i></p> <p>In 2021-22, 100 per cent of responses were within the prescribed period .</p>
	Board is advised of application refusals at each (monthly) meeting.	Decisions are made in accordance with the Victorian Floodplain Management Strategy, the Goulburn Broken Regional Floodplain Management Strategy, the Victoria Planning Provisions Practice Notes and Authority Policy, all of which have largely been incorporated into respective municipal planning schemes as performance based criteria.
<i>Local Jobs First Act 2003</i>	Local government can request advice but are not required to implement it.	Advice has been provided where appropriate.
<i>Local Jobs First Act 2003</i>	Local Jobs First aims to foster industry development by encouraging Victorian government departments and public bodies to genuinely consider Victorian, Australian and New Zealand supply. In regional Victoria, the policy applies to all procurement and project activities valued at \$1 million or more.	During 2021-22, Goulburn Broken CMA did not commence any contracts valued at over \$1m for which a VIPP Plan or LIDP was required.
<i>DataVic Access Policy (2012)</i>	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 did not supply any data sets to DataVic during 2021-22.

Act or policy	Board's major tasks	2021-22 issues and status
<p><i>Victorian Government Risk Management Framework</i></p> <p><i>Victorian Managed Insurance Authority Act 1996</i></p>	<p>The Victorian Government Risk Management Framework provides for a minimum risk management standard across Public Sector entities.</p> <p>Attestation by accountable officer in annual report which ensures that requirement is built into corporate planning and reporting processes.</p>	<p>See page 97 for Statement regarding Goulburn Broken CMA compliance with the applicable Standing Directions under the <i>Financial Management Act 1994</i>.</p> <p>All Insurances for Goulburn Broken CMA are held with the Victorian Managed Insurance Authority and in accordance with the mandatory insurance requirements under the Victorian Government's Risk Management Framework.</p>
<p>Competitive Neutrality Policy</p>	<p>Competitive neutrality requires government businesses to ensure where services compete, or potentially compete with the private sector, any advantage arising solely from their government ownership be removed if it is not in the public interest. Government businesses are required to cost and price these services as if they were privately owned. Competitive neutrality policy supports fair competition between public and private businesses and provides government businesses with a tool to enhance decisions on resource allocation. This policy does not override other policy objectives of government and focuses on efficiency in the provision of service.</p>	<p>Goulburn Broken CMA continues to comply with the requirements of the Competitive Neutrality Policy.</p>
<p><i>Occupational Health and Safety Act 2004</i></p>	<p>Report Occupational Health and Safety (OHS) issues at each (monthly) board meeting and in Annual Report.</p> <p>Quarterly report of measurable OHS targets to the Audit Risk and Compliance Committee.</p>	<p>Goulburn Broken CMA continues to review and update its OHS Policy Statement and supporting OHS procedures to provide and maintain a safe work environment for employees as per section 21 of the <i>OHS Act 2004</i>.</p> <p>All staff are inducted in the procedures that reflect their work function.</p> <p>Employee Health and Safety Representatives and Designated Work Groups are part of the consultative processes under sections 35 and 36 of the <i>OHS Act 2004</i>.</p> <p>Policies and procedures are available to staff on the portal (intranet).</p> <p>An OHS Report against agreed KPIs is provided to the Board quarterly with detailed review of incidents and action reviewed annually by the Audit Risk and Compliance Committee.</p>
<p>Gifts, benefits and hospitality policy framework</p>	<p>The Victorian Government Framework requiring employees to record gifts, benefits and hospitalities offered to them in their capacity with Goulburn Broken CMA.</p>	<p>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. The annual register is de-identified and publicised on the Goulburn Broken CMA website.</p>
<p><i>Gender Equality Act 2020</i></p>	<p>Victorian public sector organisations, universities and local councils (with 50 or more employees) have obligations to plan, measure and track progress towards gender equality.</p>	<p>Goulburn Broken CMA has completed all requirements to ensure compliance with its obligations under the Act with the Commissioner formally approving the Goulburn Broken CMA Gender Equality Action Plan.</p>

## Statement of availability of other information

The Goulburn Broken CMA 2021-22 Annual Report is available on the website [www.gbcma.vic.gov.au](http://www.gbcma.vic.gov.au)

### Additional information available on request

In compliance with the requirements of the Standing Directions of the Assistant Treasurer, details in respect of the items listed below have been retained by the Authority and are available on request, subject to the provisions of the *Freedom of Information Act 1982*:

- details of publications produced by the entity about itself and how these can be obtained
- details of changes in prices, fees, charges, rates and levies charged by the entity
- details of any major external reviews carried out on the entity
- details of major research and development activities undertaken by the entity
- 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 entity to develop community awareness of the entity and its services.

The information is available on request from:

FOI Officer, Goulburn Broken CMA, PO Box 1752, Shepparton VIC 3630  
Email [foi@gbcma.vic.gov.au](mailto:foi@gbcma.vic.gov.au) or phone (03) 5822 7700.

### Additional information included in annual report

Details in respect of the following items have been included in Goulburn Broken CMA's annual report, on the pages indicated below:

- assessments and measures undertaken to improve the occupational health and safety of employees (on page 84)
- a list of Goulburn Broken CMA's major committees; the purposes of each committee; and the extent to which the purposes have been achieved (on page 91)
- a statement of completion of declarations of pecuniary interests by relevant officers (on page 92).

### Information that is not applicable to Goulburn Broken CMA

The following information is not relevant to Goulburn Broken CMA for the reasons set out below:

- a declaration of shares held by senior officers (no shares have ever been issued in Goulburn Broken CMA)
- a statement on industrial relations within Goulburn Broken CMA and details of time lost through industrial accidents and disputes (no industrial relations issues occurred during 2021-22).

## Compliance with *Public Interest Disclosures Act 2012*

The *Public Interest Disclosures Act 2012* enables people to make a disclosure about corrupt or improper conduct by a public officer or a public body.

Goulburn Broken Catchment Management Authority is a 'public body' for the purposes of the Act.

### **What is a public interest disclosure?**

A public interest disclosure is a complaint of corrupt or improper conduct or detrimental action by a public officer or a public body.

'Improper or corrupt conduct' involves substantial mismanagement of public resources, risk to public health or safety or the environment, or corruption.

'Detrimental action' is action taken against a person in reprisal for making a public interest disclosure.

### **How do I make a 'Public Interest Disclosure'?**

You can make a public interest disclosure about the Goulburn Broken Catchment Management Authority or its board members, officers or employees by contacting the Independent Broad-Based Anti-Corruption Commission (details below).

Goulburn Broken Catchment Management Authority is not able to receive public interest 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 Protected Interest Disclosure policy on its website at: [www.gbcma.vic.gov.au](http://www.gbcma.vic.gov.au)

### **Contacts**

Independent Broad-Based Anti-Corruption Commission (IBAC) Victoria  
Address: Level 1, North Tower, 459 Collins Street, Melbourne Victoria 3000.  
Mail: IBAC, GPO Box 24234, Melbourne Victoria 3001.  
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.

## Financial results summary: current plus past four years

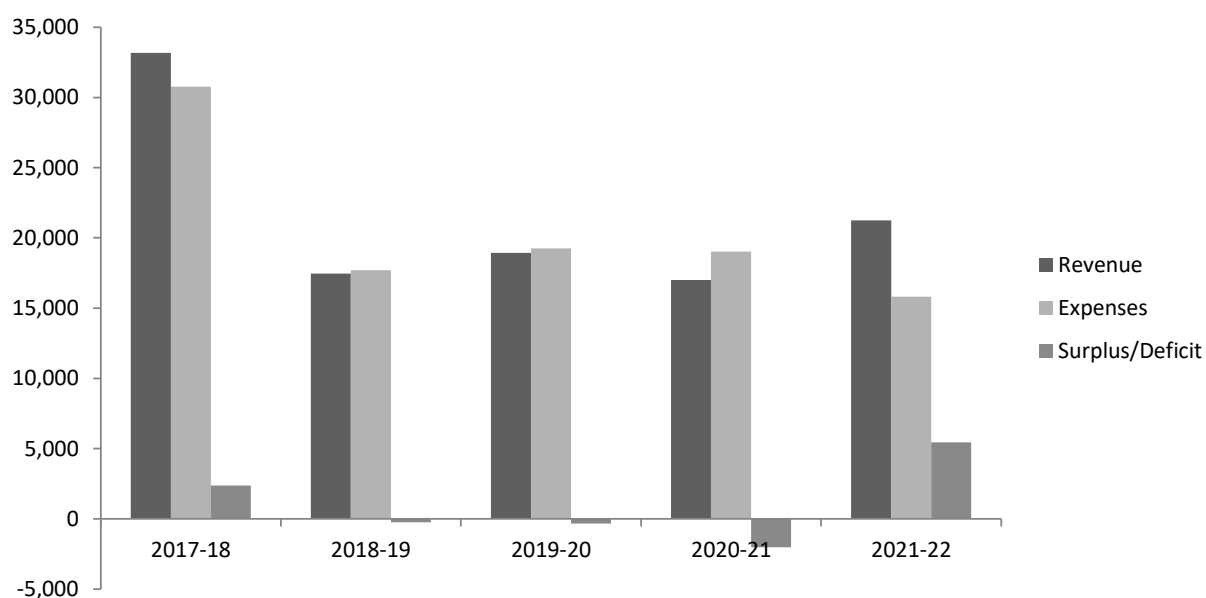
	2017-18	2018-19	2019-20	2020-21	2021-22
<b>Revenue and expenditure</b>					
State Government	14,802	12,117	13,639	12,020	15,673
Australian Government	17,065	2,499	2,694	3,002	3,282
Government contributions	31,867	14,616	16,333	15,022	18,955
Revenue from government entities	863	1,739	869	615	687
Other revenues	432	1,109	1,740	1,371	1,603
<b>Total Revenue</b>	<b>33,162</b>	<b>17,464</b>	<b>18,941</b>	<b>17,008</b>	<b>21,245</b>
Programs Expenditure	30,779	17,698	19,197	18,965	15,767
Interest	-	-	62	59	43
<b>Total expenses</b>	<b>30,779</b>	<b>17,698</b>	<b>19,259</b>	<b>19,024</b>	<b>15,810</b>
<b>NET RESULT <sup>i</sup></b>	<b>2,383</b>	<b>(234)</b>	<b>(318)</b>	<b>(2,016)</b>	<b>5,435</b>
<b>Balance sheet items</b>					
<b>Current assets</b>					
Cash	14,692	13,808	13,404	11,977	17,166
Receivables	898	2,042	1,475	1,480	1,296
Prepayments	216	187	154	155	208
<b>Total current assets</b>	<b>15,806</b>	<b>16,037</b>	<b>15,033</b>	<b>13,612</b>	<b>18,670</b>
Non-Financial assets	970	1,154	2,451	2,433	1,922
<b>Total assets</b>	<b>16,776</b>	<b>17,191</b>	<b>17,484</b>	<b>16,045</b>	<b>20,592</b>
<b>Current liabilities</b>					
Trade creditors	1,084	1,390	817	2,512	1,339
Unearned revenue/Contract Liabilities	1,173	1,176	1,221	-	85
Borrowings	-	103	675	805	808
Accruals	590	663	333	301	721
Provisions	2,256	2,000	1,907	2,027	2,029
<b>Total current liabilities</b>	<b>5,103</b>	<b>5,332</b>	<b>4,953</b>	<b>5,645</b>	<b>4,982</b>
<b>Non-current liabilities</b>					
Borrowings	-	418	1,388	1,259	1,049
Other	11	13	33	47	32
<b>Total non-current liabilities</b>	<b>11</b>	<b>431</b>	<b>1,421</b>	<b>1,306</b>	<b>1,081</b>
<b>NET ASSETS</b>	<b>11,662</b>	<b>11,428</b>	<b>11,110</b>	<b>9,094</b>	<b>14,529</b>
<b>Equity items</b>					
Contributed capital	4,209	4,209	4,209	4,209	4,209
Reserves	7,453	7,219	6,901	4,885	10,320
<b>TOTAL EQUITY</b>	<b>11,662</b>	<b>11,428</b>	<b>11,110</b>	<b>9,094</b>	<b>14,529</b>
<b>Cash flow items</b>					
Net operating activities	(8,821)	(949)	(180)	(927)	5,241
Net investing activities	(206)	98	75	81	359
Net financing activities	(14)	(33)	(299)	(581)	(411)
<b>Net cash movement</b>	<b>(9,014)</b>	<b>(884)</b>	<b>(404)</b>	<b>(1,427)</b>	<b>5,189</b>

i. Net Surplus funds relate to committed funds for multi year projects. For further details see the Notes to the Financial Statements, Note 6.3 (page 136) and Note 8.3 (page 144).



## Financial results summary: current plus past four years (Cont'd)

Financial summary 2017-18 to 2021-22, \$'000



## Financial results for 2021-22 against Corporate Plan

	Corporate Plan 2021-22 \$'000	Actual 2021-22 \$'000	Actual Variance to Corporate Plan \$'000
<b>Comprehensive Operating Statement</b>			
Total revenue	16,368	21,245	4,877
Total expenditure	(16,630)	(15,810)	820
Net result <sup>i</sup>	(262)	5,435	5,697
<b>Statement of financial position</b>			
Cash and receivables	10,677	18,462	7,785
Other	150	208	58
Non-current assets	2,456	1,922	(534)
<b>Total assets</b>	<b>13,283</b>	<b>20,592</b>	<b>7,309</b>
<b>Liabilities</b>			
Payables	1,100	2,060	(960)
Employee provisions	2,060	2,061	(1)
Lease Liabilities	2,118	1,857	261
Contract Liabilities	-	85	(85)
<b>Total liabilities</b>	<b>5,278</b>	<b>6,063</b>	<b>(785)</b>
<b>Net assets</b>	<b>8,005</b>	<b>14,529</b>	<b>6,524</b>

i. Net Surplus funds relate to committed funds for multi year projects. For further details see the Notes to the Financial Statements, Note 6.3 (page 136) and Note 8.3 (page 144).

## Financial Review including significant changes and factors affecting performance and position

The variance in the actual result to end June 2022 of \$5.4 million surplus compared to the Corporate Plan deficit of \$0.3 million was driven by an increase in revenue of \$4.9m above Corporate Plan.

The increase in revenue was predominantly received from the Department of Education, Land, Water and Planning which accounted for \$4.1m of the additional funding. Additional revenue included new projects relating to Waranga Basin Irrigation Drainage(\$800k), Environmental monitoring and management plans (\$393K), Box Ironbark alliance (\$213K) Water efficiency (\$150K) and various projects relating to carbon and climate change(\$170k). Additional revenue against budget also included funding for Landcare (\$503k) and Sustainable Irrigation drainage projects (\$1m) which were brought forward from 2022-23. Offsetting this was a reduction in Kynmer Creek funding of \$350K as commencement was held up with approvals on design of the regulator. This also impacted expenditure as majority of the \$1.5m expenditure for Kynmer Creek had been budgeted to be spent in 2021-22 and now expected to be incurred in 2022-23.

Expenditure against the new projects was minimal as much of the new funding was received in the last quarter. This increase in expenditure was offset by delays in finalisation of Environmental Contribution funding agreements. These projects had been budgeted to commence in August but were delayed until January, thus expenditure was below budget in the current fiscal year and delivery carried forward into the 2022-23 fiscal year.

With project delays and majority of the new funding received in the last quarter, delivery for these projects is expected to occur in the 2022-23 fiscal year hence the \$6.5M increase in reserves against budget represents additional committed funds for the new and delayed projects yet to be delivered and works carried forward into the next fiscal year.

### Consultancy expenditure

	2017-18		2018-19		2019-20		2020-21		2021-22	
	No.	\$ (excl. GST)	No.	\$ (excl. GST)	No.	\$ (excl. GST)	No.	\$ (excl. GST)	No.	\$ (excl. GST)
Consultancies valued at \$10,000 or greater	40	890,530	27	665,437	26	631,581	16	498,346	17	445,745
Consultancies valued at less than \$10,000	22	66,491	29	112,412	25	100,254	9	68,734	16	58,651

Details of individual consultancies valued at \$10,000 or greater are outlined on the Goulburn Broken Catchment Management Authority website, at [www.gbcma.vic.gov.au](http://www.gbcma.vic.gov.au).

### Information and Communication Technology expenditure

For the 2021-22 reporting period, Goulburn Broken CMA had a total ICT expenditure of \$ 1,172,817 with the details shown below.

All operational ICT expenditure	ICT Expenditure related to projects to create or enhance ICT capabilities			
	Business as usual ICT expenditure	Non-Business as usual ICT expenditure	Operational expenditure (OPEX)	Capital expenditure (CAPEX)
Total \$	Total \$ = OPEX + CAPEX		\$	\$
908,856	263,961		263,961	-

ICT expenditure refers to the Goulburn Broken CMA's costs in providing business enabling ICT services within the current reporting period. It comprises Business as usual ICT expenditure and Non-business as usual ICT expenditure.

Non-business as usual expenditure relates to extending or enhancing the Goulburn Broken CMA's current ICT capabilities.

Business as usual ICT expenditure is all remaining ICT expenditure which primarily relates to ongoing activities to operate and maintain the current ICT capability

Excludes expenditure on shared systems and security services including Dynamics 365 implementation that has been recharged to CMA's.

Software-as-a-Service (SaaS) costs previously capitalised under AASB 138 as an intangible asset have been fully written off and expensed in 2021-22 as information technology and communication expenses (\$201K).

## Social Procurement Framework

The Authority is fully committed to supporting the Government’s directions under the Social Procurement Framework (SPF) and we recognise that we play a key role in advancing social and sustainable outcomes for Victorians.

In 2020, the Authority developed a Social Procurement Strategy to enable a strategic, agency-wide approach to how it will deliver social and sustainable outcomes through our procurement in accordance with the Social Procurement Framework and beyond.

In that Strategy, the Authority prioritised five SPF objectives – detailed in the table below, with their associated reporting metrics. These SPF objectives were chosen based on their high degree of alignment with the Authority’s strategic direction and values as well as being best positioned to advance our identified social procurement opportunities.

Objective prioritised	Outcome sought	SPF Reporting metric
Opportunities for Victorian Aboriginal people	Employment of Victorian Aboriginal people by suppliers to the Victorian Government	Number of Victorian Aboriginal businesses engaged. Total expenditure with Victorian Aboriginal businesses.
	Purchasing from Victorian Aboriginal businesses	Number of Victorian Aboriginal businesses engaged and the number as a proportion of the suppliers used by the CMA
Environmentally sustainable outputs	Project-specific requirements to use sustainable resources and to manage waste and pollution	Total number of contracts entered into with Victorian Government suppliers that have clauses relating to both sustainable resources and to manage waste and pollution. This may cover items such as: <ul style="list-style-type: none"> <li>Recycled/reused water as a percentage of total</li> <li>Percentage or measure of water consumption</li> <li>Percentage of procurement materials sourced from accredited supply chains.</li> </ul>
	Use of recycled content in construction works	Total number of contracts entered into with Victorian Government suppliers that have clauses relating to recycled content in works e.g. plant guards and weed mats.
Environmentally sustainable business practices	Adoption of sustainable business practices by suppliers to the Victorian Government	Total number of contracts entered into with Victorian Government suppliers that have a clause for environmentally sustainable business practices. This may cover items such as: <ul style="list-style-type: none"> <li>Application and achievement of industry recognised standards</li> <li>The number of suppliers with an Environmental Management System that indicates the extent of their environmental awareness.</li> </ul>
Implementation of the Climate Change policy objectives	Procurement of outputs that are resilient against the impacts of climate change	Total number of contracts entered into with Victorian Government suppliers that have a clause for procurement of outputs that are resilient against the impacts of climate change. This may cover items such as: <ul style="list-style-type: none"> <li>Application and achievement of national and international standards related to the management of climate change risks</li> <li>Measurement of emissions and/or emission targets.</li> </ul>
Use of local suppliers	Supporting local communities and SME’s	Percentage of total expenditure with local suppliers.

## Achievements

Goulburn Broken CMA has commenced reviewing policies, procedures, forms and process and made the following changes :

- Incorporated social procurement into our market approach templates
- Incorporated into vendor registration form, collection from suppliers on social enterprise registration status
- Updated procurement framework to include social enterprise strategy and alignment with objectives
- Engaged with local Traditional Owner Corporations to develop cultural heritage assessments process
- Reviewed procurement categories for sustainable procurement opportunities and commenced purchasing of green energy and hybrid vehicles

Goulburn Broken CMA will prioritise the upskilling of employees and further improvement of systems for the continuance of achieving SPF objectives in all aspects of the business practice.

## **Other financial disclosures**

### **Local Jobs First**

During 2021-22, Goulburn Broken CMA did not commence any contracts valued at over \$1m which a VIPP Plan or LIDP was required.

### **Government advertising expenditure**

Nil advertising campaigns with a media spend of \$100,000 or greater were entered into during the year.

### **Disclosure of major contracts**

Goulburn Broken CMA did not award any major contracts (valued at \$10 million or more) during 2020-21.

### **Capital projects**

Goulburn Broken CMA did not manage any capital projects.

### **Subsequent events**

There were no events occurring after balance date which may significantly affect the Goulburn Broken CMA's operations in subsequent reporting periods.

## Financial Statements

### Goulburn Broken Catchment Management Authority

Australian Business Number (ABN): 89 184 039 725

#### Declaration in the financial statements

The attached financial statements for the Goulburn Broken Catchment Management Authority (Goulburn Broken CMA) have been prepared in accordance with Direction 5.2 of the Standing Directions of the Assistant Treasurer under 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 2022 and financial position of the Goulburn Broken CMA at 30 June 2022.

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 25 August 2022.



H Reynolds

Chair of the Board  
Goulburn Broken Catchment Management Authority



C Cumming

Chief Executive Officer  
Goulburn Broken Catchment Management Authority



E Curtis

Chief Finance Officer  
Goulburn Broken Catchment Management Authority

25 August 2022

## Independent Auditor's Report

### To the Board of the Goulburn Broken Catchment Management Authority

<b>Opinion</b>	<p>I have audited the financial report of the Goulburn Broken Catchment Management Authority (the authority) which comprises the:</p> <ul style="list-style-type: none"> <li>• balance sheet as at 30 June 2022</li> <li>• comprehensive operating statement for the year then ended</li> <li>• statement of changes in equity for the year then ended</li> <li>• cash flow statement for the year then ended</li> <li>• notes to the financial statements, including significant accounting policies</li> <li>• declaration in the financial statements.</li> </ul> <p>In my opinion, the financial report presents fairly, in all material respects, the financial position of the authority as at 30 June 2022 and its financial performance and cash flows for the year then ended in accordance with the financial reporting requirements of Part 7 of the <i>Financial Management Act 1994</i> and applicable Australian Accounting Standards.</p>
<b>Basis for Opinion</b>	<p>I have conducted my audit in accordance with the <i>Audit Act 1994</i> which incorporates the Australian Auditing Standards. I further describe my responsibilities under that Act and those standards in the <i>Auditor's Responsibilities for the Audit of the Financial Report</i> section of my report.</p> <p>My independence is established by the <i>Constitution Act 1975</i>. My staff and I are independent of the authority in accordance with the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 <i>Code of Ethics for Professional Accountants</i> (the Code) that are relevant to my audit of the financial report in Victoria. My staff and I have also fulfilled our other ethical responsibilities in accordance with the Code.</p> <p>I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.</p>
<b>Board's responsibilities for the financial report</b>	<p>The Board of the authority is responsible for the preparation and fair presentation of the financial report in accordance with Australian Accounting Standards and the <i>Financial Management Act 1994</i>, and for such internal control as the Board determines is necessary to enable the preparation and fair presentation of a financial report that is free from material misstatement, whether due to fraud or error.</p> <p>In preparing the financial report, the Board is responsible for assessing the authority's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is inappropriate to do so.</p>

**Auditor's responsibilities for the audit of the financial report**

As required by the *Audit Act 1994*, my responsibility is to express an opinion on the financial report based on the audit. My objectives for the audit are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

As part of an audit in accordance with the Australian Auditing Standards, I exercise professional judgement and maintain professional scepticism throughout the audit. I also:

- identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- obtain an understanding of internal control relevant to the audit 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 authority's internal control
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board
- conclude on the appropriateness of the Board's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the authority's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the authority to cease to continue as a going concern.
- evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.

I communicate with the Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

MELBOURNE  
5 September 2022



Paul Martin  
*as delegate for the Auditor-General of Victoria*

## Comprehensive Operating Statement for the financial year ended 30 June 2022<sup>i</sup>

	Note	2022 \$000	2021 \$000
<b>Revenue and income from transactions</b>			
Government contributions	2.2.1	18,955	15,022
Interest	2.2.2	39	35
Other income	2.2.3	1,878	1,884
<b>Total revenue and income from transactions</b>		<b>20,872</b>	<b>16,941</b>
<b>Expenses from transactions</b>			
Employee expenses	3.2	(6,286)	(6,108)
Depreciation & amortisation	4.1.1	(528)	(586)
Materials, grants, contracts and consultancies	3.3	(7,104)	(10,444)
Information technology and communication expenses	3.4	(1,170)	(1,023)
Other operating expenses	3.5	(722)	(863)
<b>Total expenses from transactions</b>		<b>(15,810)</b>	<b>(19,024)</b>
<b>Net result from transactions (net operating balance)</b>		<b>5,062</b>	<b>(2,083)</b>
<b>Other economic flows included in net result</b>			
Net gain/(loss) on non-financial assets <sup>ii</sup>	8.2	373	67
<b>Net result for the period</b>		<b>5,435</b>	<b>(2,016)</b>
<b>Comprehensive result</b>		<b>5,435</b>	<b>(2,016)</b>

i. This format is aligned to AASB 1049 Whole of Government and General Government Sector Financial Reporting.

ii. Net gain/(loss) on non-financial assets includes unrealised and realised gains/(losses) from revaluations, impairments, and disposals of all physical assets and intangible assets, except when these are taken through the asset revaluation surplus.

The accompanying notes form part of these financial statements.



## Balance Sheet as at 30 June 2022<sup>i</sup>

	Note	2022 \$000	2021 \$000
<b>Assets</b>			
<b>Financial assets</b>			
Cash and deposits	6.1	17,166	11,977
Receivables	5.1	1,296	1,480
<b>Total financial assets</b>		<b>18,462</b>	<b>13,457</b>
<b>Non-Financial assets</b>			
Property, plant and equipment	4.1	1,922	2,232
Intangible assets	4.2	-	201
Other non-financial assets	5.3	208	155
<b>Total non-financial assets</b>		<b>2,130</b>	<b>2,588</b>
<b>Total assets</b>		<b>20,592</b>	<b>16,045</b>
<b>Liabilities</b>			
Payables	5.2	2,060	2,813
Contract Liabilities	5.4	85	-
Interest bearing liabilities	6.2.1	1,857	2,064
Employee benefits	3.2.2	2,061	2,074
<b>Total liabilities</b>		<b>6,063</b>	<b>6,951</b>
<b>Net assets</b>		<b>14,529</b>	<b>9,094</b>
<b>Equity</b>			
Contributed Capital		4,209	4,209
Accumulated Surplus		-	-
Reserves	8.3	10,320	4,885
<b>Net Worth</b>		<b>14,529</b>	<b>9,094</b>

i. This format is aligned to AASB 1049 Whole of Government and General Government Sector Financial Reporting.

The accompanying notes form part of these financial statements.

## Cash Flow Statement for the financial year ended 30 June 2022<sup>i</sup>

	Note	2022 \$000	2021 \$000
<b>Cash flow from operating activities</b>			
<b>Receipts</b>			
Receipts from government		19,634	14,312
Revenue from other Government Entities		1,037	274
Goods and services tax received from the ATO <sup>ii</sup>		389	494
Interest received		39	35
Other receipts		1,262	1,420
<b>Total Receipts</b>		<b>22,361</b>	<b>16,535</b>
<b>Payments</b>			
Payments to suppliers and employees		(17,077)	(17,403)
Interest paid		(43)	(59)
<b>Total Payments</b>		<b>(17,120)</b>	<b>(17,462)</b>
<b>Net cash flows from/(used in) operating activities</b>	6.1.1	<b>5,241</b>	<b>(927)</b>
<b>Cash flow from investing activities</b>			
Proceeds from sale of property, plant and equipment		623	245
Payment for property, plant and equipment		(264)	(164)
<b>Net cash flows from/(used in) investing activities</b>		<b>359</b>	<b>81</b>
<b>Cash flow from financing activities</b>			
Repayment of principal portion of lease liabilities <sup>iii</sup>		(411)	(581)
<b>Net cash from/(used in) financing activities</b>		<b>(411)</b>	<b>(581)</b>
<b>Net (decrease) / increase in cash held</b>		<b>5,189</b>	<b>(1,427)</b>
Cash and cash equivalents at beginning of year		11,977	13,404
<b>Cash and cash equivalents at end of year</b>	6.1	<b>17,166</b>	<b>11,977</b>

i. This format is aligned to AASB 1049 Whole of Government and General Government Sector Financial Reporting

ii. GST received from the Australian Taxation Office is presented on a net basis.

iii. The Authority has recognised cash payments for the principal portion of lease payments as financing activities; cash payments for the interest portion as operating activities consistent with the presentation of interest payments and short-term lease payments for leases and low-value assets as operating activities

The accompanying notes form part of these financial statements.

## Statement of Changes in Equity for the financial year ended 30 June 2022<sup>i</sup>

	Contributions by owner \$000	Reserves \$000	Accumulated funds \$000	Total \$000
Balance at 1 July 2020	4,209	6,901	-	11,110
Net result for the period	-	-	(2,016)	(2,016)
Transfer to / (from) Reserves	-	(2,016)	2,016	-
Balance at 30 June 2021	4,209	4,885	0	9,094
Net result for the period	-	-	5,435	5,435
Transfer to / (from) Reserves	-	5,435	(5,435)	0
Balance at 30 June 2022	4,209	10,320	0	14,529

i. This format is aligned to AASB 1049 Whole of Government and General Government Sector Financial Reporting.

The accompanying notes form part of these financial statements.

## Notes to the financial statements for the year ended 30 June 2022

### 1. About this report

The Goulburn Broken Catchment Management Authority (Authority) is a statutory authority of the State of Victoria, established on 1 July 1997 by the state government.

Its principal address is:

Goulburn Broken Catchment Management Authority  
168 Welsford St  
Shepparton VIC 3630

The Goulburn Broken CMA is responsible for coordinating land, water and biodiversity management of the Goulburn Broken Catchment. Further description of the nature of its operations and its principal activities is included in the Report of Operations, which does not form part of these financial statements.

### Basis of preparation

These financial statements are in Australian dollars and the historical cost convention is used unless a different measurement basis is specifically disclosed in the note associated with the item measured on a different basis.

The accrual basis of accounting has been applied in preparing these financial statements, whereby assets, liabilities, equity, revenue and expenses are recognised in the reporting period to which they relate, regardless of when cash is received or paid.

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.

Judgements, estimates, and assumptions are required to be made about financial information being presented. The significant judgements made in the preparation of these financial statements are disclosed in the notes where amounts affected by those judgements are disclosed. Estimates and associated assumptions are based on professional judgements derived from historical experience and various other factors that are believed to be reasonable under the circumstances. Actual results may differ from these estimates.

Revisions to accounting estimates are recognised in the period in which the estimate is revised and also in future periods that are affected by the revision. Judgements and assumptions made by management in the application of Australian Accounting Standards (AASs) that have significant effects on the financial statements and estimates are disclosed in the notes under the heading: 'Significant judgement or estimates', and relate to:

## Notes to the financial statements for the year ended 30 June 2022

- determining transaction price and amounts allocated to performance obligations (Note 2.1);
- determining whether the performance obligations are sufficiently specific so as to determine whether the arrangement is within the scope of AASB 15 or AASB 1058 (Note 2.1);
- the timing of satisfaction of performance obligations (Note 2.1);
- employee benefit provisions (Note 3.2.2);
- estimation of useful lives (Note 4.1.1);
- determining whether configuration and customisation services are distinct from SaaS access (Note 4.2)
- accrued expenses (Note 5.2);
- contract liability (Note 5.4);
- for leases, determining whether the arrangement is in substance short-term arrangement (Note 6.2);
- estimating discount rate when not implicit in the lease (Note 6.2); and
- fair value measurements of assets and liabilities (Note 7.3).

All amounts in the financial statements have been rounded to the nearest \$1,000 unless otherwise stated.

### Rounding

Unless otherwise stated, amounts in the report have been rounded to the nearest dollar. Figures in the report may not equate due to rounding.

### Compliance Information

These general purpose financial statements have been prepared in accordance with the *Financial Management Act 1994* (FMA) and applicable AASs which include Interpretations, issued by the Australian Accounting Standards Board (AASB). In particular, they are presented in a manner consistent with the requirements of AASB 1049 Whole of Government and General Government Sector Financial Reporting.

Where appropriate, those AASs paragraphs applicable to not-for-profit entities have been applied. Accounting policies selected and applied in these financial statements ensure 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.

### COVID-19 Health Pandemic

During the 2022 reporting period, the impact of the Coronavirus (COVID-19) continued to be pervasive, impacting across industries, both domestically and internationally.

While the Authority has been affected by COVID-19, the effects have been limited to date. The Authority was well placed to transition to working remotely, and as such the closure of our offices had minimal affect on our activities. The Authority has utilised a number of initiatives to attempt to combat the effects on the staff and the community by COVID-19 and its accompanying restrictions, which to date have shown some success. The Authority has also been able to maintain its existing staffing levels throughout the crisis.

From a financial perspective, as the Authority's funding is predominantly through State and Commonwealth Government Contributions, and the majority of the Authority's dealings are with other Government Departments and Agencies, management does not currently consider COVID-19 to have a material affect on any judgements or assumptions applied in the preparation of these financial statements. COVID-19 restrictions have caused some minor delays in onground works, which has resulted in less expenditure than otherwise expected (Note 3.3).

## 2. Funding delivery of our services

### Introduction

The Authority's overall objective is for the coordinated control of natural resource management within the broader catchments of Goulburn Broken. The role of the Authority is to ensure effective implementation of the Regional Catchment Strategy. Associated with this role the Authority carries out strategic planning and advises Government.

To enable the Authority to deliver on its objectives, it receives revenue predominantly through State and Commonwealth Government Contributions.

### Structure

- 2.1 Summary of revenue and income that funds the delivery of our services
- 2.2 Income from transactions

## Notes to the financial statements for the year ended 30 June 2022

### 2.1 Summary of revenue and income that funds the delivery of our services

	Note	2022 \$000	2021 \$000
Government contributions	2.2.1	18,955	15,022
Interest income	2.2.2	39	35
Other income	2.2.3	1,878	1,884
<b>Total income from transactions</b>		<b>20,872</b>	<b>16,941</b>

Income that funds delivery of the Authority's services are accounted for consistently with the requirements of the relevant accounting standards disclosed in the following notes.

### 2.2 Income from transactions

#### 2.2.1 Government contributions

	2022 \$000	2021 \$000
<b>Income recognised as income of not-for-profit entities (AASB 1058)</b>		
<b>State Government</b>		
Corporate and Statewide	1,504	1,131
Sustainable Irrigation	5,971	4,479
River Health	5,842	4,054
Floodplain Management	868	1,025
Land and Biodiversity	1,488	1,331
<b>Total State</b>	<b>15,673</b>	<b>12,020</b>
<b>Commonwealth Government</b>		
Other Commonwealth Funding	371	104
	<b>16,044</b>	<b>12,124</b>
<b>Income recognised as revenue from contract with customers</b>		
<b>Commonwealth Government</b>		
National Landcare Program	2,911	2,898
	<b>2,911</b>	<b>2,898</b>
<b>Total Government contributions</b>	<b>18,955</b>	<b>15,022</b>

The Authority has determined that all grant income is recognised as income of not-for-profit entities in accordance with AASB 1058, except for grants that are enforceable and with sufficiently specific performance obligations and accounted for as revenue from contracts with customers in accordance with AASB 15.

#### **Grants recognised as income of not-for-profit entities (AASB 1058)**

Income from grants without any sufficiently specific performance obligations, or that are not enforceable, is recognised when the Authority has unconditional right to receive cash which usually coincides with receipt of cash. On initial recognition of the assets, the Authority recognises any increase in liabilities, decrease in assets, and revenue ('related amount') in accordance with other Australian Accounting Standards. Related amounts may take the form of:

- revenue or a contract liability arising from a contract with a customer, in accordance with AASB 15;
- a lease liability in accordance with AASB 16;
- a financial instrument, in accordance with AASB 9; or
- a provision, in accordance with AASB 137 Provisions, Contingent Liabilities and Contingent Assets.

#### **Grants recognised as revenue from contracts with customers (AASB 15)**

Income from grants that are enforceable and with sufficiently specific performance obligations are accounted for as revenue from contracts with customers under AASB 15.

These grants relate to the provision of activities and services provided to the Commonwealth for the National Landcare Program. Revenue is recognised at the point in time Authority satisfies the performance obligation by completing the relevant service as specified in the contract. This is recognised based on the consideration specified in the funding agreement and to the extent that it is highly probable a significant reversal of the revenue will not occur. As this funding is invoiced in arrears of the work performed, the funding payments are normally received after the relevant obligation is satisfied. As at 30 June 2022 the Authority recognised \$3,335K as revenue under AASB 15 (2021: \$2,898K).

## Notes to the financial statements for the year ended 30 June 2022

### 2.2.2 Interest

	2022 \$000	2021 \$000
Interest on bank deposits	39	35
	39	35

Interest income includes interest received on bank term deposits. Interest income is recognised using the effective interest method which allocates the interest over the relevant period.

### 2.2.3 Other income

	2022 \$000	2021 \$000
Partnership Contributions - Government entities	687	615
Partnership Contributions - non-Government entities	282	276
Recoverable costs	804	926
Application fees	105	62
Other income	-	5
Total other income	1,878	1,884

Partnership contributions and Recoverable costs consists of funds received from organisations as partners in projects. The Authority has determined that all Other Income are recognised as income of not-for-profit entities in accordance with AASB 1058 as contracts are not enforceable or do not have sufficiently specific performance obligations.

All other income is recognised when the right to receive payment is established.

## 3. The cost of delivering services

### Introduction

This section provides an account of the expenses incurred by the Authority in delivering services. In Section 2, the funds that enable the provision of services were disclosed and in this note the cost associated with the provision of services are recorded.

### Structure

- 3.1 Expenses incurred in delivery of services
- 3.2 Employee expenses
- 3.3 Materials, grants, contracts and consultancies
- 3.4 Information technology and communication expenses
- 3.5 Other operating expenses

### 3.1 Expenses incurred in delivery of services

	Note	2022 \$000	2021 \$000
Employee expenses	3.2	6,286	6,108
Materials, maintenance, grants, contracts and consultancies	3.3	7,104	10,444
Information Technology and Communication expenses	3.4	1,170	1,023
Other operating expenses	3.5	722	863
Total expenses from delivery of services		15,282	18,438

## Notes to the financial statements for the year ended 30 June 2022

### 3.2 Employee expenses

#### 3.2.1 Employee expenses in the comprehensive operating statement

	2022 \$000	2021 \$000
Salaries & wages	4,888	4,740
Annual leave	407	393
Long service leave	162	145
Superannuation	530	483
FBT	214	200
Other	85	147
<b>Total employee expenses</b>	<b>6,286</b>	<b>6,108</b>

Employee expenses include all costs related to employment including wages and salaries, payroll tax, fringe benefits tax, leave entitlements, termination payments and WorkCover premiums.

The amount recognised in the comprehensive operating statement in relation to superannuation is employer contributions for members of both defined benefit and defined contribution superannuation plans that are paid or payable during the reporting period.

#### 3.2.2 Employee related provisions in the balance sheet

##### **Significant judgement: Employee benefit provisions**

In measuring employee benefits, consideration is given to expected future wage and salary levels, experience of employee departures and periods of service. Expected future payments are discounted using a single weighted average discount rate based on market yields of national government bonds in Australia that reflects the estimated timing and amount of benefit payment.

Provision is made for benefits accruing to employees in respect of wages and salaries, annual leave and long service leave (LSL) for services rendered to the reporting date and recorded as an expense during the period the services are delivered.

	2022 \$000	2021 \$000
<b>Current provisions for employee benefits</b>		
<b>Time in lieu</b>		
Unconditional and expected to be settled within 12 months	10	16
<b>Annual leave</b>		
Unconditional and expected to settle within 12 months	324	372
Unconditional and expected to settle after 12 months	21	37
<b>Long service leave</b>		
Unconditional and expected to settle within 12 months	102	25
Unconditional and expected to settle after 12 months	1,346	1,359
<b>Provisions for on-costs<sup>i</sup></b>		
Unconditional and expected to settle within 12 months	54	48
Unconditional and expected to settle after 12 months	172	170
<b>Total current provisions</b>	<b>2,029</b>	<b>2,027</b>
i. On-costs include payroll tax, superannuation and worker's compensation Insurance		
<b>Non-current provisions for employee benefits</b>		
<b>Long service leave</b>		

## Notes to the financial statements for the year ended 30 June 2022

	2022 \$000	2021 \$000
Conditional and expected to be settled after 12 months	28	43
<b>Provision for on-costs</b>		
Conditional and expected to be settled after 12 months	4	4
Total non-current provisions	32	47
Total provisions for employee benefits and on-costs	2,061	2,074

### Reconciliation of movement in on-cost provision

	2022 \$000	2021 \$000
<b>Opening balance</b>	222	211
Additional provisions recognised	65	64
Reductions arising from payments/other sacrifices of future economic benefits	(66)	(47)
Unwind of discount and effect of changes in the discount rate/Reductions arising from re measurement of payroll tax	9	(6)
Closing balance	230	222

#### **Wages and salaries and annual leave:**

Liabilities for wages and salaries (including non-monetary benefits, time in lieu, annual leave and on-costs) are recognised as part of the employee benefit provision as current liabilities and are measured at their undiscounted amounts expected to be paid, because the Authority does not have an unconditional right to defer settlements of these liabilities.

The annual leave liability is classified as a current liability and measured at the undiscounted amount expected to be paid, as the Authority does not have an unconditional right to defer settlement of the liability for at least 12 months after the end of the reporting period.

No provision has been made for sick leave as all sick leave is non-vesting and it is not considered probable that the average sick leave taken in the future will be greater than the benefits accrued in the future. As sick leave is non-vesting, an expense is recognised in the Statement of Comprehensive Income as it is taken.

Employment on-costs such as payroll tax, workers compensation and superannuation are not employee benefits. They are disclosed separately as a component of the provision for employee benefits when the employment to which they relate has occurred.

#### **Long service leave (LSL):**

Regardless of the expected timing of settlement, unconditional LSL is classified as a current liability because the Authority does not have an unconditional right to defer the settlement of these liabilities.

Unconditional LSL liability amounts expected to be wholly settled within 12 months are measured at the nominal value. Unconditional LSL liability amount that are not expected to be wholly settled within 12 months are measured as the present value of the estimated future cash outflows to be made by the entity.

Unconditional LSL represents long service leave entitlements accrued for employees with more than 7 years of continuous service.

Conditional LSL is classified as a non-current liability and measured as the present value of the estimated future cash outflows to be made by the entity.

Any gain or loss following revaluation of the present value of non-current LSL liability is recognised as a transaction, except to the extent that a gain or loss arises due to changes in bond interest rates for which it is then recognised as an 'other economic flow' in the net result.



## Notes to the financial statements for the year ended 30 June 2022

### 3.2.3 Superannuation contributions

Employees of the Authority are entitled to receive superannuation benefits and the Authority contributes to both defined benefit and defined contribution plans. The defined benefit plans provide benefits based on year of service and final average salary. Obligations for superannuation contributions are recognised as an expense in Comprehensive Operating Statement when they are made or due.

The Authority does not recognise any defined benefit liability for contributions to the ESS because it has no legal or constructive obligation to pay future benefits relating to its employees. The Department of Treasury and Finance discloses in its annual financial statements the States net defined benefits cost related to the members of these plans as an administered liability. For contributions to the defined benefit fund with Vision Super (the Fund) the Authority does not use defined benefit accounting for its defined benefit obligations because the Fund's Defined Benefit plan is a pooled multi-employer sponsored plan.

The amount recognised in the comprehensive operating statement in relation to Superannuation is employer contributions for members of both defined benefit and defined contribution superannuation plans.

	Paid Contributions for the Year			Contributions outstanding at year end	
	2022 Rate %	2022 \$000	2021 \$000	2022 \$000	2021 \$000
Defined benefit plans: <sup>i</sup>					
Vision super defined benefits scheme	10	7	6	-	-
Emergency Services Superannuation Scheme	various	32	35	1	1
Defined contribution plans					
Vision super defined contribution scheme	10	138	127	-	4
Vic super	10	135	128	-	6
Other private schemes	10	218	186	-	7
		530	482	1	18

i. The bases for determining the level of contributions is determined by the various actuaries of the defined benefit superannuation plans

The expected contributions to be paid to the Defined Benefit category of Vision Super for the year ending 30 June 2023 is \$11,054.

### 3.3 Materials, grants, contracts and consultancies

	2022 \$000	2021 \$000
Grants paid	999	1,554
Consultants	763	1,536
Contractors	5,150	6,994
Materials	192	360
Total materials, maintenance, grants, contracts and consultancies	7,104	10,444

Grants are recognised in the period in which they are paid or payable.

Materials, contracts and consultancies are recognised as an expense in the reporting period in which they are incurred.

### 3.4 Information Technology and Communication expenses

	2022 \$000	2021 \$000
Information Technology and Communication expenses	1,170	1,023

Information Technology and Communication expenses includes costs for software, security services and support relating to shared services whereby Goulburn Broken CMA incurs the costs as lead agency and is shared across seven Catchment Management Authorities with costs recovered recorded in Other income as Recoverable costs (2.2.3). The amount of recoverable costs for shared services was \$433K (2021: \$526K).

## Notes to the financial statements for the year ended 30 June 2022

### 3.5 Other operating expenses

	2022 \$000	2021 \$000
Victorian Auditor-General's Office for audit of financial statements	24	23
Internal audit expenses	25	39
Short-term lease expenses	159	151
Events and Publicity	75	70
Other expenses	439	580
	722	863

Other operating expenses generally represent the day-to-day running costs incurred in normal operations and are recognised as an expense in the reporting period in which they are incurred.

#### Short-term lease expenses

The following lease payments are recognised on a straight-line basis:

- Short-term leases – leases with a term 12 months or less; and
- Low value leases – leases with the underlying asset's fair value (when new, regardless of the age of the asset being leased) is no more than \$10 000.

Variable lease payments that are not included in the measurement of the lease liability (i.e. variable lease payments that do not depend on an index or a rate and which are not, in substance fixed) such as those based on performance or usage of the underlying asset, are recognised in the Comprehensive operating statement (except for payments which has been included in the carrying amount of another asset) in the period in which the event or condition that triggers those payments occur.

## 4. Key assets available to support output delivery

### Introduction

The Authority controls property and other investments that are utilised in fulfilling its objectives and conducting its activities. They represent the key resources that have been entrusted to the Authority to be utilised for delivery of those outputs.

#### Significant judgement: Fair value measurement

Where the assets included in this section are carried at fair value, additional information is disclosed in Note 7.3 about how those fair values were determined.

### Structure

- 4.1 Total property, plant and equipment
- 4.2 Intangible assets

#### 4.1 Total property, plant and equipment

	Gross carrying amount		Accumulated Depreciation		Net carrying amount	
	2022 \$000	2021 \$000	2022 \$000	2021 \$000	2022 \$000	2021 \$000
Buildings at fair value	1,209	1,209	(546)	(377)	663	832
Plant and equipment at fair value	1,469	1,455	(1,332)	(1,260)	137	195
Motor vehicles at fair value	1,547	1,817	(425)	(612)	1,122	1,205
	4,225	4,481	(2,303)	(2,249)	1,922	2,232

## Notes to the financial statements for the year ended 30 June 2022

### 4.1(a) Total right-of-use assets: buildings and vehicles

This note explores right-of-use assets, a subset of the Authority's total assets, where right-of-use assets represent the Authority's right to use an underlying asset for the lease term.

The following tables are subsets of buildings and vehicles by right-of-use assets.

	Gross carrying amount		Accumulated Depreciation		Net carrying amount	
	2022 \$000	2021 \$000	2022 \$000	2021 \$000	2022 \$000	2021 \$000
Right of Use Buildings at fair value	1,171	1,171	(508)	(339)	663	832
Motor vehicles at fair value	1,505	1,513	(383)	(341)	1,122	1,172
Net Carrying amount	2,676	2,684	(891)	(680)	1,785	2,004

	Right of Use Buildings at fair value \$000	Motor vehicles at fair value \$000
<b>2022</b>		
Opening balance – 1 July 2020	832	1,172
Additions	-	448
Disposals	-	(244)
Depreciation expense	(169)	(254)
Closing balance – 30 June 2021	663	1,122
<b>2021</b>		
Opening balance – 1 July 2020	1,002	1,025
Additions	-	583
Disposals	-	(178)
Depreciation expense	(170)	(258)
Closing balance – 30 June 2021	832	1,172

#### Initial recognition:

Items of property, plant and equipment, are measured initially at cost and subsequently revalued at fair value less accumulated depreciation and impairment. Where an asset is acquired for no or nominal cost, the cost is its fair value at the date of acquisition.

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.

#### Right-of-use asset acquired by lessees (Under AASB 16 Leases from 1 July 2019) – Initial measurement:

The Authority recognises a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost which comprises the initial amount of the lease liability adjusted for:

- any lease payments made at or before the commencement date less any lease incentive received; plus
- any initial direct costs incurred.

#### Subsequent measurement:

Property, plant and equipment are subsequently measured at fair value less accumulated depreciation and impairment.

Buildings relate to specialised portable structures and are valued based on depreciated replacement cost.

Vehicles are valued using the depreciated replacement cost method. The Authority 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.

Fair value for plant and equipment that are specialised in use (such that it is rarely sold other than as part of a going concern) is determined using the depreciated replacement cost method.

Note 7.3 includes additional information in connection with fair value determination of property, plant and equipment.

## Notes to the financial statements for the year ended 30 June 2022

### Right-of-use asset – Subsequent measurement

Non-Financial Physical Assets, right-of-use assets are subject to fair value, whereby management undertake an assessment to determine whether the current lease payments under the contract approximate current market rentals for equivalent properties that would be paid in the current environment.

Management have completed an assessment at 30 June 2022 comparing current lease payments against current market rentals for equivalent properties and has determined that no adjustment to the right-of-use asset or liability is required.

Buildings relate to the Authority's leased offices and are valued at fair value less depreciation and impairment.

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.

Fair value for plant and equipment that are specialised in use (such that it is rarely sold other than as part of a going concern) is determined using the depreciated replacement cost method.

Note 7.3 includes additional information in connection with fair value determination of property, plant and equipment.

### 4.1.1 Depreciation and amortisation

Charge for the period <sup>i</sup>	2022 \$000	2021 \$000
Buildings	169	169
Plant & equipment	78	85
Motor vehicles	281	314
Intangible assets	-	18
Total depreciation and amortisation	528	586

i. The table incorporates depreciation of right-of-use assets as per AASB 16 Leases.

All non-financial physical assets that have finite useful lives are depreciated.

Depreciation is calculated on a straight-line basis, at rates that allocate the asset's value, less any estimated residual value, over its estimated useful life. Typical estimated useful lives for the different asset classes for current and prior years are included in the table below:

Asset	Useful life
Buildings: Leased assets	7 years
Plant and equipment	2.5 - 10 years
Motor vehicles (including leased assets)	5-8 years
Intangible assets	3-5 years

The estimated useful lives, residual values and depreciation method are reviewed at the end of each annual reporting period, and adjustments made where appropriate.

Right-of-use assets are generally depreciated over the shorter of the asset's useful life and the lease term.

### Impairment

Non-financial assets, including items of Property, Plant and Equipment and intangibles with infinite lives, are tested for impairment whenever there is an indication that the assets may be impaired.

The assets concerned are tested as to whether their carrying value exceeds their recoverable amount. Where an asset's carrying value exceeds its recoverable amount, the difference is written off as an 'other economic flow', except to the extent that it can be debited to an asset revaluation surplus amount applicable to that class of asset.

If there is an indication that there has been a reversal in impairment, the carrying amount shall be increased to its recoverable amount. However this reversal should not increase the asset's carrying amount above what would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised in prior years.

The recoverable amount for most assets is measured at the higher of depreciated replacement cost and fair value less costs to sell. Recoverable amount for assets held primarily to generate net cash inflows is measured at the higher of the present value of future cash flows expected to be obtained from the asset and fair value less costs to sell.

## Notes to the financial statements for the year ended 30 June 2022

### 4.1.2 Reconciliation of movements in carrying values of property, plant and equipment

	Buildings at fair value \$000	Plant and equipment at fair value \$000	Motor vehicles at fair value \$000	Total \$000
<b>2022</b>				
Opening balance	832	195	1,205	2,232
Additions	-	20	448	468
Disposals	-	0	(250)	(250)
Depreciation	(169)	(78)	(281)	(528)
Amortisation	-	-	-	-
Closing balance	663	137	1,122	1,922
<b>2021</b>				
Opening balance	1,002	170	1,114	2,286
Additions	-	110	583	693
Disposals	-	-	(178)	(178)
Depreciation	(170)	(85)	(314)	(569)
Amortisation	-	-	-	-
Closing balance	832	195	1,205	2,232

### 4.2 Intangible assets

#### **Significant judgement: Determination whether configuration and customisation services are distinct from SaaS access**

Where the SaaS arrangement supplier provides both configuration and customisation services, judgement has been applied to determine whether each of these services are distinct or not from the underlying use of the SaaS application software. Distinct configuration and customisation costs are expensed as incurred as the software is configured or customised (i.e. upfront). Non-distinct configuration and customisation costs are expensed over the SaaS contract term.

Computer software	2022 \$000	2021 \$000
<b>Gross carrying amount</b>		
Opening Balance	255	201
Computer software in development and not in use	(219)	(165)
Additions	-	219
Disposals	-	-
Closing balance	36	255
<b>Accumulated Amortisation</b>		
Opening Balance	(54)	(36)
Amortisation	18	(18)
Closing balance	(36)	(54)
Net book value at end of financial year	-	201

#### **Initial recognition**

Purchased intangible assets are initially recognised at cost. When the recognition criteria in AASB 138 Intangible Assets is met, internally generated intangible assets are recognised at cost. Subsequently, intangible assets with finite useful lives are carried at cost less accumulated amortisation and accumulated impairment losses. Depreciation and amortisation begins when the asset is available for use, that is, when it is in the location and condition necessary for it to be capable of operating in the manner intended by management.

## Notes to the financial statements for the year ended 30 June 2022

### Subsequent measurement

Intangible produced assets with finite useful lives, are amortised as an 'expense from transactions' on a straight line basis over their useful lives.

Intangible non-produced assets with finite lives are amortised as an 'other economic flow' on a straight line basis over their useful lives. The amortisation period is five years.

### Impairment of intangible assets

Intangible assets with finite useful lives are tested for impairment whenever an indication of impairment is identified.

The policy in connection with testing for impairment is outlined in section 4.1.1

### Software-as-a-Service (SaaS) arrangements

SaaS arrangements are service contracts providing the Authority with the right to access the cloud provider's application software over the contract period. As such, the Authority does not receive a software intangible asset at the contract commencement date.

Please refer to Note 8.9 for the change in accounting policy relating to SaaS arrangements.

## 5. Other assets and liabilities

### Introduction

This section sets out those assets and liabilities that arose from the Authority's operations.

### Structure

- 5.1 Receivables
- 5.2 Payables
- 5.3 Other non-financial assets
- 5.4 Contract Liabilities

### 5.1 Receivables

	2022 \$000	2021 \$000
<b>Contractual</b>		
Government grants receivables	1,087	1,316
Trade receivables	100	16
<b>Total contractual</b>	<b>1,187</b>	<b>1,332</b>
<b>Statutory</b>		
GST input tax credits recoverable	94	148
Payroll Tax receivable	15	-
<b>Total current receivables</b>	<b>1,296</b>	<b>1,480</b>

Receivables consist of:

- Contractual receivables, which are classified as financial instruments and categorised as 'financial assets at amortised cost'. They are initially recognised at fair value plus any directly attributable transaction costs. The Authority holds the contractual receivables with the objective to collect the contractual cash flows and therefore subsequently measures them at amortised cost using the effective interest method, less any impairment. Subsequent to initial measurement they are measured at amortised cost less any impairment; and
- Statutory receivables, which do not arise from contracts and are recognised and measured similarly to contractual receivables (except for impairment), but are not classified as financial instruments for disclosure purposes.

Trade and other receivables are due for settlement 30 days from the from the end of the month that they were invoiced.

There are no material financial assets that are individually determined to be impaired.

Details about the Authority's impairment policies, the Authority's exposure to credit risk, and the calculation of the loss allowance are set out in note 7.1.

## Notes to the financial statements for the year ended 30 June 2022

### 5.2 Payables

#### Significant judgement: Accrued expenses

Accrued expenses represent goods or services that have been received but have not been invoiced by the supplier.

In estimating the amount of an accrued expense, consideration is given to the stage of completion of the services being performed.

	2022 \$000	2021 \$000
<b>Contractual</b>		
Trade payables	1,279	2,454
Accrued expenses	721	301
	2,000	2,755
<b>Statutory</b>		
FBT payable	60	50
Payroll tax	-	8
	60	58
<b>Total current payables</b>	<b>2,060</b>	<b>2,813</b>

Payables consist of:

- Contractual payables, classified as financial instruments and measured at amortised cost. Accounts payable represent liabilities for goods and services provided to the Authority prior to the end of the financial year that are unpaid; and
- Statutory payables, that are recognised and measured similarly to contractual payables, but are not classified as financial instruments and not included in the category of financial liabilities at amortised cost, because they do not arise from contracts.

Payables for supplies and services have an average credit period of 30 days.

#### 5.2.1 Maturity analysis of contractual payables<sup>i</sup>

	Carrying amount \$000	Maturity dates		
		Less than 1 month \$000	1-3 months \$000	3-6 months \$000
<b>2022 Payables</b>				
Trade payables	1,279	1,279	-	-
Accrued expenses	721	721	-	-
Other payables	-	-	-	-
	2,000	2,000		
<b>2021 Payables</b>				
Trade payables	2,454	2,454	-	-
Accrued expenses	301	301	-	-
Other payables	-	-		
	2,755	2,755	-	-

i. Maturity Analysis is presented using the contractual undiscounted cash flows.

### 5.3 Other non-financial assets

	2022 \$000	2021 \$000
<b>Current other assets</b>		
Prepayments	208	155
<b>Total other assets</b>	<b>208</b>	<b>155</b>

Total current other assets include prepayments which 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.

## Notes to the financial statements for the year ended 30 June 2022

### 5.4 Contract Liabilities

<b>Contract liabilities</b>	<b>2022 \$000</b>	<b>2021 \$000</b>
Opening balance	-	1,221
Add: Payments received for performance obligations yet to be completed during the period	85	-
Less: Payment of liability to external party in the reporting period	-	1,221
<b>Total contract liabilities</b>	<b>85</b>	<b>-</b>
Represented by:		
Current contract liabilities	85	-
Non-current contract liabilities	-	-

## 6. How we financed our operations

This section provides information on the sources of finance utilised by the Authority during its operations and other information related to financing activities of the Authority.

This section includes disclosures of balances that are financial instruments, such as cash balances. Note 7.1 provides additional, specific financial instrument disclosures.

### Structure

- 6.1 Cash flow information and balances
- 6.2 Leases
- 6.3 Carry forward project funding

#### 6.1 Cash flow information and balances

Cash and deposits, including cash equivalents, comprise cash on hand and cash at bank, deposits at call and those highly liquid investments with an original maturity of three months or less, which are held for the purpose of meeting short-term cash commitments rather than for investment purposes, and which are readily convertible to known amounts of cash and are subject to an insignificant risk of changes in value.

<b>Cash and deposits disclosed in the balance sheet</b>	<b>2022 \$000</b>	<b>2021 \$000</b>
Cash on hand	1	1
Cash at bank	17,165	11,976
<b>Balance as per cash flow statement</b>	<b>17,166</b>	<b>11,977</b>

#### 6.1.1 Reconciliation of net result to cash flow from operating activities

	<b>2022 \$000</b>	<b>2021 \$000</b>
Net result for the period	5,435	(2,016)
<b>Non-cash movements</b>		
(Gain) / loss on disposal of non-current assets	(373)	(67)
Depreciation and amortisation of non-current assets	528	586
Write off of Intangible Asset	201	-
<b>Movements in assets and liabilities</b>		
Decrease/(increase) in receivables	184	(5)
Decrease/(increase) in prepayments	(52)	(1)
(Decrease)/increase in contract liabilities	84	(1,221)
(Decrease)/increase in payables	(753)	1,663
(Decrease)/increase in employee benefits	(13)	134
<b>Net cash flows from/(used in) operating activities</b>	<b>5,241</b>	<b>(927)</b>



## Notes to the financial statements for the year ended 30 June 2022

### 6.2 Leases

#### **Significant judgement: Lease Terms**

In determining the lease term, the Authority considers all facts and circumstances that create an economic incentive to exercise an extension option, or not exercise a termination option. The assessment is reviewed if a significant event or a significant change in circumstances occurs which affects this assessment.

Information about leases for which the Authority is a lessee is presented below.

#### **The Authorities leasing activities**

The Authority leases buildings and motor vehicles. The lease contracts are typically made for fixed periods of 1-5 years with an option to renew the lease after that date. Lease payments for buildings are renegotiated every five years to reflect market rentals.

Property leases with contract terms of 1 year or less and a value less than \$10,000 are short-term or low value leases. The Authority has elected not to recognise right-of-use assets and lease liabilities for these leases.

#### **6.2 (a) Right-of-use Assets**

Right-of-use assets are presented in note 4.1(a)

#### **6.2 (b) Amounts recognised in the Statement of Comprehensive Statement**

The following amounts are recognised in the Statement of Comprehensive Operating Statement relating to leases:

	2022 \$000	2021 \$000
Interest Expense on lease liabilities	43	59
Expenses relating to short term leases	159	151
Depreciation	423	427
Total amount recognised in the statement of comprehensive statement	625	636

#### **6.2 (c) Amounts recognised in the Statement of Cashflows**

The following amounts are recognised in the Statement of Cashflows for the year ending 30 June 2022 relating to leases.

	2022 \$000	2021 \$000
Total cash outflow for leases	698	640

For any new contracts, the Authority considers whether a contract is, or contains a lease. A lease is defined as 'a contract, or part of a contract, that conveys the right to use an asset (the underlying asset) for a period of time in exchange for consideration'. To apply this definition the Authority assesses whether the contract meets three key evaluations:

- Whether the contract contains an identified asset, which is either explicitly identified in the contract or implicitly specified by being identified at the time the asset is made available to the Authority and for which the supplier does not have substantive substitution rights;
- Whether the Authority has the right to obtain substantially all of the economic benefits from use of the identified asset throughout the period of use, considering its rights within the defined scope of the contract and the Authority has the right to direct the use of the identified asset throughout the period of use; and
- Whether the Authority has the right to take decisions in respect of 'how and for what purpose' the asset is used throughout the period of use.

#### **Separation of lease and non-lease components**

At inception or on reassessment of a contract that contains a lease component, the lease contract is assessed to separate out and account separately for non-lease components and exclude these amounts when determining the lease liability and right-of-use asset amount.

## Notes to the financial statements for the year ended 30 June 2022

### Recognition and measurement of leases as a lessee

#### Lease Liability – initial measurement

The lease liability is initially measured at the present value of the lease payments unpaid at the commencement date, discounted using the interest rate implicit in the lease.

Lease payments included in the measurement of the lease liability comprise the following:

- fixed payments (including in-substance fixed payments) less any lease incentive receivable;
- variable payments based on an index or rate, initially measured using the index or rate as at the commencement date;
- amounts expected to be payable under a residual value guarantee; and
- payments arising from purchase and termination options reasonably certain to be exercised.

#### Lease Liability – subsequent measurement

Subsequent to initial measurement, the liability will be reduced for payments made and increased for interest. It is remeasured to reflect any reassessment or modification, or if there are changes in-substance fixed payments.

When the lease liability is remeasured, the corresponding adjustment is reflected in the right-of-use asset, or profit and loss if the right-of-use asset is already reduced to zero.

#### Short-term leases

The Authority has elected to account for short-term leases using the practical expedients. Instead of recognising a right-of-use asset and lease liability, the payments in relation to these are recognised as an expense in profit or loss on a straight-line basis over the lease term. At 30 June 2022, the Authority was committed to short term leases and the total commitment at that date was \$130K (2021: \$118K).

#### Presentation of right-of-use assets and lease liabilities

The Authority presents right-of-use assets as 'buildings' and 'motor vehicles'. Lease liabilities are presented as 'Interest bearing liabilities' in the balance sheet.

### 6.2.1 Total Interest bearing liabilities

Interest bearing liabilities	Minimum future lease payments <sup>i</sup>	
	2022 \$000	2021 \$000
Not longer than 1 year	843	852
Longer than 1 year but not longer than 5 years	1,074	1,311
Longer than 5 years	-	-
Minimum future lease payments	1,917	2,163
Less future finance charges	(60)	(99)
Present value of minimum lease payments	1,857	2,064
Included in the financial statements as:		
Interest bearing liabilities - current	808	805
Interest bearing liabilities - non-current	1,049	1,259
<b>Total</b>	<b>1,857</b>	<b>2,064</b>

i. Minimum future lease payments include the aggregate of all base payments and any guaranteed residual.

Lease liabilities relate to motor vehicles and building leases. The motor vehicles are leased from VicFleet for two to three years.

### 6.3 Carry forward project funding

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 Victorian and Australian Government programs. The Authority received funding for specific projects which are guided by the Regional Catchment Strategy and delivered in line with the Authority's Corporate Plan approved by 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. Refer Note 8.3 for Committed funds reserve. At balance date the Authority has cash and cash equivalents that will be utilised to complete these projects in future financial years.

# Notes to the financial statements for the year ended 30 June 2022

## 7. Risks, contingencies and valuation judgements

### Introduction

The Authority is exposed to risk from its activities and outside factors. In addition, it is often necessary to make judgements and estimates associated with recognition and measurement of items in the financial statements. This section sets out financial instrument specific information, (including exposures to financial risks) as well as those items that are contingent in nature or require a higher level of judgement to be applied, which for the Authority relate mainly to fair value determination.

### Structure

- 7.1 Financial instruments specific disclosures
- 7.2 Contingent assets and contingent liabilities
- 7.3 Fair value determination

### 7.1 Financial instruments specific disclosures

#### Introduction

Financial instruments arise out of contractual agreements that give rise to a financial asset of one entity and a financial liability or equity instrument of another entity. Due to the nature of the Authority's activities, certain financial assets and financial liabilities arise under statute rather than a contract, and as such, do not meet the definition of financial instruments.

#### **Categories of financial instruments**

Financial Assets are measured at amortised cost if they are held by the Authority to collect contractual cash flows, the contractual terms give rise to cash flows that are solely payments of principal and interest, and if they not designated as fair value through net result. These assets are initially recognised at fair value plus any directly attributable transaction costs. Subsequent to initial measurement, these financial assets are measured at amortised cost using the effective interest method less any impairment. The financial assets at amortised cost category includes cash and deposits, and trade and other receivables (excluding statutory receivables).

Financial liabilities at amortised cost are initially recognised on the date they originated. They are initially measured at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, these financial instruments are measured at amortised cost with any difference between the initial recognised amount and the redemption value being recognised in profit and loss over the period of the interest bearing liability, using the effective interest rate method. Financial instrument liabilities measured at amortised cost include all of the Authority's contractual payables (excluding statutory payables), and lease liabilities.

A financial liability is derecognised when the obligation under the liability is discharged, cancelled or expires.

#### **7.1.1 Financial instruments: Impairment of Financial Assets**

The authority has been recording the allowance for expected credit loss for the relevant financial instruments, applying AASB 9's Expected Credit Loss Approach. Subject to AASB 9 impairment assessment include the Authority's contractual receivables and statutory receivables.

#### **Contractual receivables at amortised cost**

The Authority applies AASB 9 simplified approach for all contractual receivables to measure the expected credit losses using a lifetime expected loss allowance based on the assumptions about the risk of default and the expected loss rates. The Authority has grouped contractual receivables on shared credit risk characteristics and days past due, and the credit loss rate based on the Authority's past history, existing market conditions, as well as forward-looking estimates at the end of the financial year.

Under this approach, the expected loss rate for the year ending 30 June 2022 has been calculated at 0%, and as such no loss allowance has been recognised. The Authority has a low expected loss rate due to majority of funding sourced from State and Commonwealth government.

On this basis, the Authority determines the opening loss allowance on initial application date of AASB 9 and the closing loss allowance at the end of the financial year as follows:

## Notes to the financial statements for the year ended 30 June 2022

30 June 2022	Current	Less than 1 month	1-3 months	3 months - 1 year	1-5 years	Total
Expected Loss Rate (%)	0	0	0	0	0	
Gross carrying amount of contractual receivables (\$000)	1,187	-	-	-	-	1,187
Loss Allowance	-	-	-	-	-	-
30 June 2021						
Expected Loss Rate (%)	0	0	0	0	0	
Gross carrying amount of contractual receivables (\$000)	1,326	-	-	6	-	1,332
Loss Allowance	-	-	-	-	-	-

### Statutory receivables at amortised cost

The Authority's non-contractual receivables arising from statutory requirements are not financial instruments. However, they are nevertheless recognised and measured in accordance with AASB 9 requirements as if those receivables are financial instruments.

Statutory receivables are considered to have low credit risk, taking into account the counterparty's credit rating, risk of default and capacity to meet contractual cash flow obligations in the near term. As a result, the loss allowance recognised for these financial assets during the period was limited to 12 months expected losses.

The expected credit loss rate is 0% (2021: 0%) and the credit loss allowance is Nil (2021: Nil).

### 7.1.2 Financial instruments: Categorisation

2022	Contractual financial assets at amortised cost \$000	Contractual financial liabilities at amortised cost \$000	Total \$000
<b>Contractual financial assets</b>			
Cash and deposits	17,166	-	17,166
Receivables <sup>i</sup>			
Trade and government grant receivables <sup>i</sup>	1,187	-	1,187
<b>Total contractual financial assets</b>	<b>18,353</b>	<b>-</b>	<b>18,353</b>
<b>Contractual financial liabilities</b>			
Payables <sup>i</sup>			
Trade payables	-	1,279	1,279
Accrued expenses	-	721	721
Lease liabilities	-	1,857	1,857
<b>Total contractual financial liabilities</b>	<b>-</b>	<b>3,857</b>	<b>3,857</b>

i. The total amounts disclosed here exclude statutory amounts.

## Notes to the financial statements for the year ended 30 June 2022

2021	Contractual financial assets at amortised cost \$000	Contractual financial liabilities at amortised cost \$000	Total \$000
<b>Contractual financial assets</b>			
Cash and deposits	11,977	-	11,977
Receivables <sup>i</sup>			
Trade and government grant receivables <sup>i</sup>	1,332	-	1,332
<b>Total contractual financial assets</b>	<b>13,309</b>	<b>-</b>	<b>13,309</b>
<b>Contractual financial liabilities</b>			
Payables <sup>i</sup>			
Trade payables	-	2,454	2,454
Accrued expenses	-	301	301
Lease liabilities	-	2,064	2,064
<b>Total contractual financial liabilities</b>	<b>-</b>	<b>4,819</b>	<b>4,819</b>

i. The total amounts disclosed here exclude statutory amounts.

### 7.1.3 Financial risk management objectives and policies

The Authority's main financial risks include credit risk, liquidity risk and interest rate risk. The Authority manages these financial risks in accordance with its financial risk management policy.

The Authority uses different methods to measure and manage the different risks to which it is exposed. Primary responsibility for the identification and management of financial risks rests with the Audit, Risk and Compliance committee of the Authority.

#### **Financial instruments: Credit risk**

Credit risk refers to the possibility that a borrower will default on its financial obligations as and when they fall due. The Authority's exposure to credit risk arises from the potential default of a counter party on their contractual obligations resulting in financial loss to the Authority. Credit risk is measured at fair value and is monitored on a regular basis.

Credit risk associated with the Authority's contractual financial assets is minimal because the main debtor is the Victorian Government. For debtors other than the Government, the Authority has adopted a policy of only dealing with creditworthy counterparties and obtaining sufficient collateral where appropriate. For cash assets, the Authority's policy is to only deal with banks with high credit-ratings assigned by international credit-rating agencies. All cash and deposits are held with Authorised Deposit Taking Institute's (ADI's) with a minimum credit rating of AAA.

#### **Financial instruments: Liquidity risk**

Liquidity risk arises from being unable to meet financial obligations as they fall due. The Authority operates under the Government fair payments policy of settling financial obligations within 30 days and in the event of a dispute, making payments within 30 days from the date of resolution.

The Authority's exposure to liquidity risk is deemed insignificant based on prior periods' data and current assessment of risk. The Authority does not have any borrowings and maintains high levels of cash and deposits readily available to meet its financial obligations. The Authority manages its liquidity risk by maintaining adequate cash reserves and continually monitoring the Authority's expenditure commitments and cash flow needs.

#### **Financial instruments: Market risk**

The Authority's exposure to market risk is primarily through interest rate risk with significant surplus funds held in deposits at call in the Central Banking System. The Authority has no exposure to foreign exchange risk or other price risk.

Cash flow interest rate risk is the risk that the future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Authority is required to invest all funds with the State Government Central Banking System (CBS) in compliance with the Standing Directions 2018 under the *Financial Management Act 1994* (2018 Directions). The floating rates provided by the Central Banking System expose the Authority to interest rate risk.

Management monitors movements in interest rates on an as required basis.

The carrying amounts of financial assets and financial liabilities that are exposed to interest rates and the Authority's sensitivity to interest rate risk are set out in the table that follows.

## Notes to the financial statements for the year ended 30 June 2022

### Interest rate exposure of financial instruments

2022	Weighted average interest rate %	Carrying amount \$000	Interest rate exposure		
			Fixed interest rate \$000	Variable interest rate \$000	Non-interest bearing \$000
<b>Financial assets</b>					
Cash and deposits	1.00	17,166		17,165	1
Contractual receivables		1,187			1,187
<b>Total financial assets</b>		<b>18,353</b>	<b>0</b>	<b>17,165</b>	<b>1,188</b>
<b>Financial liabilities</b>					
Lease Liabilities	2.70	(1,857)	(1,857)		
Contractual payables		(2,000)			(2,000)
Contract Liabilities		85			
<b>Total financial liabilities</b>		<b>(3,775)</b>	<b>(1,857)</b>	<b>0</b>	<b>(2,000)</b>

2021	Weighted average interest rate %	Carrying amount \$000	Interest rate exposure		
			Fixed interest rate \$000	Variable interest rate \$000	Non-interest bearing \$000
<b>Financial assets</b>					
Cash and deposits	0.25	11,977	-	9,946	2,031
Contractual receivables		1,332	-	-	1,332
<b>Total financial assets</b>		<b>13,309</b>	<b>-</b>	<b>9,946</b>	<b>3,363</b>
<b>Financial liabilities</b>					
Lease Liabilities	3.19	(2,064)	(2,064)	-	-
Contractual payables		(2,755)	-	-	(2,755)
<b>Total financial liabilities</b>		<b>(4,819)</b>	<b>(2,064)</b>	<b>-</b>	<b>(2,755)</b>

### Interest rate risk sensitivity

The sensitivity analysis below shows the impact on the Authority's net result and equity for a movement of 100 basis points up and down in market interest rates. The Authority believes a movement of 2.5% over the next year is reasonable given consideration of past performances and recent movements in interest rates.

	Carrying amount \$000	Interest rate			
		-2.5 per cent		+2.5 per cent	
		Net result \$000	Equity \$000	Net result \$000	Equity \$000
<b>2022</b>					
Cash and deposits <sup>i</sup>	17,166	(429)	(429)	429	429
<b>2021</b>					
Cash and deposits <sup>i</sup>	11,977	(119)	(119)	119	119

- i. Cash and deposits includes \$17,165K (2021: 9,946K) that is exposed to floating rates movements. Sensitivities to these movements are calculated as follows:  
 2022: \$17,165K x 0.025 = \$429,150  
 2021: \$9,946K x 0.01 = \$99,460

## Notes to the financial statements for the year ended 30 June 2022

### 7.2 Contingent assets and contingent liabilities

Contingent assets and contingent liabilities are not recognised in the balance sheet but are disclosed and, if quantifiable, are measured at nominal value.

	2022 \$000	2021 \$000
<b>Contingent assets</b>		
As at 30 June 2022, the Authority has no known contingent assets.	-	-
<b>Contingent liabilities</b>		
As at 30 June 2022, the Authority has no known contingent liabilities.	-	-

### 7.3 Fair value determination

#### **Significant judgement: Fair value measurements of assets and liabilities**

Fair value determination requires judgement and the use of assumptions. This section discloses the most significant assumptions used in determining fair values. Changes to assumptions could have a material impact on the results and financial position of the Authority.

The Authority's Property, plant and equipment are carried at fair value.

In addition, the fair values of other financial assets and liabilities which are carried at amortised cost, also need to be determined for disclosure purposes.

The Authority determines the policies and procedures for determining fair values for both financial and non-financial assets and liabilities as required.

#### **Fair value hierarchy**

In determining fair values, a number of inputs are used. To increase consistency and comparability in the financial statements, these inputs are categorised into three levels, also known as the fair value hierarchy. The levels are as follows:

- 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.

The Authority determines whether transfers have occurred between levels in the hierarchy by reassessing 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.

#### **7.3.1 Fair value determination of financial assets and liabilities**

The Authority currently holds a range of financial instruments that are recorded in the financial statements where the carrying amounts are a reasonable approximation of fair value, either due to their short-term nature or with the expectation that they will be paid in full by the end of the 2021-22 reporting period.

These financial instruments include:

Financial assets	Financial liabilities
Cash and deposits	
Receivables:	Payables:
• Trade receivables	• Trade payables
• Accrued revenue	• Accrued expenses
	• Lease liabilities

## Notes to the financial statements for the year ended 30 June 2022

### 7.3.2 Fair value determination: non-financial physical assets

#### Fair value measurement hierarchy

2022	Carrying amount as at 30 June \$000	Fair Value measurement at end of reporting period using:		
		Level 1 <sup>i</sup> \$000	Level 2 <sup>i</sup> \$000	Level 3 <sup>i</sup> \$000
<b>Buildings at fair value</b>				
Buildings - right of use	663	-	663	-
<b>Total Buildings at fair value</b>	<b>663</b>	<b>-</b>	<b>663</b>	<b>-</b>
<b>Plant and Equipment at fair value</b>				
Plant and Equipment	137	-	-	137
<b>Total Plant and Equipment at fair value</b>	<b>137</b>	<b>-</b>	<b>-</b>	<b>137</b>
<b>Motor vehicles at fair value</b>				
Motor vehicles	1,122	-	-	1,122
<b>Total motor vehicles at fair value</b>	<b>1,122</b>	<b>-</b>	<b>-</b>	<b>1,122</b>

i. Classified in accordance with the fair value hierarchy, see Note 7.3.

2021	Carrying amount as at 30 June \$000	Fair Value measurement at end of reporting period using:		
		Level 1 <sup>i</sup> \$000	Level 2 <sup>i</sup> \$000	Level 3 <sup>i</sup> \$000
<b>Buildings at fair value</b>				
Buildings - right of use	832	-	832	-
<b>Total Buildings at fair value</b>	<b>832</b>	<b>-</b>	<b>832</b>	<b>-</b>
<b>Plant and Equipment at fair value</b>				
Plant and Equipment	195	-	-	195
<b>Total Plant and Equipment at fair value</b>	<b>195</b>	<b>-</b>	<b>-</b>	<b>195</b>
<b>Motor vehicles at fair value</b>				
Motor vehicles	1,205	-	-	1,205
<b>Total motor vehicles at fair value</b>	<b>1,205</b>	<b>-</b>	<b>-</b>	<b>1,205</b>

i. Classified in accordance with the fair value hierarchy, see Note 7.3.

There have been no transfers between levels during the period.

The following methods and assumptions were used to estimate fair value:

#### **Buildings**

Buildings – right of use asset is valued based on the net present value of management's estimate of current market rentals for an equivalent property, using a discount rate based on the Authority's incremental borrowing rate. (refer note 4.1(a)).

#### **Motor vehicles**

Motor vehicles are valued using the depreciated replacement cost method. The Authority acquires new vehicles and disposes of them before the end of their economic life. The process of acquisition, use and disposal in the market is managed by experienced fleet managers within VicFleet and the Authority who set the relevant depreciation rates during use to reflect the utilisation of the motor vehicles.

#### **Plant and equipment and computer equipment**

Plant and equipment and computer equipment is held at fair value. When plant and equipment or computer 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 2022.

For all assets measured at fair value, the current use is considered the highest and best use.



## Notes to the financial statements for the year ended 30 June 2022

### Reconciliation of Level 3 fair value movements

	Motor vehicles \$000	Plant and equipment \$000	Office furniture and equipment \$000	Total \$000
<b>2022</b>				
Opening Balance	1,205	195	-	1,400
Purchases (sales)	448	20	-	468
Transfers in (out) of Level 3				0
Depreciation	(280)	(78)	-	(358)
Gains or losses recognised in net result	(251)		-	(251)
Closing balance	1,122	137	-	1,259

	Motor vehicles \$000	Plant and equipment \$000	Office furniture and equipment \$000	Total \$000
<b>2021</b>				
Opening Balance	1,114	170	-	1,284
Purchases (sales)	583	110	-	693
Transfers in (out) of Level 3	-	-	-	-
Depreciation	(314)	(85)	-	(399)
Gains or losses recognised in net result	(178)	-	-	(178)
Closing balance	1,205	195	-	1,400

### Description of unobservable inputs to level 3 valuations

	Valuation technique	Significant unobservable inputs
Plant and equipment – Specialised	Depreciated replacement cost	Cost per unit Useful life of plant and equipment
Computer equipment	Depreciated replacement cost	Cost per unit Useful life of plant and equipment
Motor vehicles	Depreciated replacement cost	Cost per unit Useful life of motor vehicles

## 8. Other disclosures

This section provides additional material disclosures required by accounting standards or otherwise, for the understanding of this financial report.

### Structure

- 8.1 Ex-gratia expenses
- 8.2 Other economic flows included in net result
- 8.3 Reserves
- 8.4 Responsible persons
- 8.5 Remuneration of executive officers
- 8.6 Related parties
- 8.7 Remuneration of auditors
- 8.8 Subsequent events
- 8.9 Change in Accounting Policies
- 8.10 Economic dependency
- 8.11 Australian Accounting Standards issued that are not yet effective
- 8.12 Glossary of technical terms

## Notes to the financial statements for the year ended 30 June 2022

### 8.1 Ex-gratia expenses

Ex-gratia expenses are the voluntary payments of money or other non-monetary benefit (e.g. a write-off) that is not made either to acquire goods, services or other benefits for the entity to meet a legal liability, or to settle or resolve a possible legal liability of or claim against the entity.

The Authority had no Ex-gratia expenses for the year ending 30 June 2022 (2021 \$nil).

### 8.2 Other economic flows included in net result

Other economic flows measure the change in volume or value of assets or liabilities that do not result from transactions.

Net gain/(loss) on non-financial assets	2022 \$000	2021 \$000
<b>Net gain/(loss) on disposal of property, plant and equipment</b>		
Proceeds from sale of non-financial assets	623	245
Less written down value	(250)	(178)
Net gain/(loss) on non-financial assets	373	67

### 8.3 Reserves

Committed funds reserve <sup>i</sup>	2022 \$000	2021 \$000
Balance at the beginning of the reporting period	4,885	6,901
Net transfers (to) / from accumulated funds	5,435	(2,016)
Balance at the end of the reporting period	10,320	4,885

i. The Committed funds reserve has been established to recognise that the Authority receives funding for programs in advance of the program works taking place. The Authority is committed to expending these funds in accordance with its Corporate Plan in succeeding years. At the end of the financial year any Accumulated Funds which represents unexpended program funding, has been transferred to the reserve, while any losses which represent program expenditure in excess of current year funding is transferred from the reserve.

### 8.4 Responsible persons

In accordance with the Ministerial Directions issued by the Assistant Treasurer under the *Financial Management Act 1994*, the following disclosures are made regarding responsible persons for the reporting period.

#### Names

The persons who held the positions of Ministers and Accountable Officers of the Authority at any time during the financial year were:

Minister for Water	The Hon. Lisa Neville, MP	1 July 2021 to 26 June 2022
Acting Minister for Water	The Hon. Richard Wynne, MP	1 July 2021 to 22 August 2021
Minister for Energy, Environment and Climate Change	The Hon. Liliansa D'Ambrosio, MP	1 July 2021 to 27 June 2022
Minister for Water	The Hon. Harriet Shing MP	27 June 2022 to 30 June 2022
Minister for Environment and Climate Action	The Hon. Liliansa D'Ambrosio, MP	27 June 2022 to 30 June 2022

Position		Period
Chair	H Reynolds	1 July 2021 to 30 June 2022
Board Member	A Weston	1 July 2021 to 30 June 2022
Board Member	R Harris	1 July 2021 to 30 June 2022
Board Member	S Lolicato	1 July 2021 to 30 September 2021
Board Member	J Boynton	1 July 2021 to 30 September 2021
Board Member	S Parker	1 July 2021 to 30 June 2022
Board Member	L Miller	1 July 2021 to 30 June 2022
Board Member	L McLean	1 October 2021 to 30 June 2022
Board Member	A McClaren	1 October 2021 to 30 June 2022
Board Member	J Smith	1 October 2021 to 30 June 2022
CEO	C Cumming	1 July 2021 to 30 June 2022
Acting CEO	C Walters	27 January 2022 to 6 February 2022

## Notes to the financial statements for the year ended 30 June 2022

### Remuneration

Remuneration received or receivable by all Responsible Persons in connection with the management of the Authority during the reporting period is reported in the table below:

Income bands	2022	2021
\$1-\$9,999	3	1
\$10,000-\$19,999	7	6
\$20,000-\$29,999	1	1
\$240,000-\$249,999	1	-
\$260,000-\$269,999	-	1
Total number of responsible persons	12	9
Total remuneration \$	\$375,431	\$387,416

The compensation detailed above excludes the salaries and benefits the Portfolio Ministers receive. The Ministers' remuneration and allowances is set by the *Parliamentary Salaries and Superannuation Act 1968* and is reported within the Department of Parliamentary Services' Financial Report.

### 8.5 Remuneration of executive officers

The Goulburn Broken CMA did not have any executive officers, other than the CEO, to whom the Victorian Government's Public Entity Executive Remuneration (PEER) Policy applies. The CEO is an accountable officer and therefore disclosed under Note 8.4 and Note 8.6.

### 8.6 Related parties

The Authority is a wholly owned and controlled entity of the State of Victoria. Related parties of the Authority include:

- all key management personnel and their close family members;
- all cabinet ministers and their close family members; and
- all departments and public sector entities that are controlled and consolidated into the whole of state consolidated financial statements.

All related party transactions have been entered into on an arm's length basis.

### Significant transactions with government-related entities

During the year, income received from government-related entities for grants and reimbursements that enable the Goulburn Broken CMA to deliver on the Regional Catchment Strategy, statutory obligations and manage IT platform across the sector. The Authority received funding from the following government-related entities under normal commercial terms and conditions:

Entity	2022 Funding received (\$000)	2021 Funding received (\$000)
Department of Environment, Land, Water and Planning	16,210	10,827
Glenelg Hopkins Catchment Management Authority	256	194
Wimmera Catchment Management Authority	231	97
West Gippsland Catchment Management Authority	201	75
North East Catchment Management Authority	200	155
East Gippsland Catchment Management Authority	195	152
Corangamite Catchment Management Authority	147	176
Department of Jobs, Precincts & Regions (formerly DEDJTR)	114	1,864
Department of Treasury and Finance (VicFleet Lease Mgt)	70	37
Victorian Fisheries Authority	68	-
North Central Catchment Management Authority	59	-
Goulburn Valley Water	-	34

Receivables outstanding at 30 June 2022: \$234,408 (2021: \$541,029).

During the year, payments to government-related entities were made for contract services relating to the delivery of Goulburn Broken CMA's programs. The Authority made significant payments to the following government-related entities under normal commercial terms and conditions:

## Notes to the financial statements for the year ended 30 June 2022

Entity	2022 Payments made (\$000)	2021 Payments made (\$000)
Goulburn-Murray Water	3,342	1,858
Department of Environment, Land, Water and Planning	790	1,732
Parks Victoria	325	357
Department of Treasury & Finance	296	379
Victorian Managed Insurance Authority (VMIA)	111	103
Wimmera Catchment Management Authority	94	-
Department of Jobs, Precincts & Regions (formerly DEDJTR)	88	170
North Central Catchment Management Authority	80	63

Payables outstanding at 30 June 2022: \$697,931. (2021: \$2,057,655).

### Key management personnel

Key management personnel are those persons having authority and responsibility for planning, directing and controlling activities of the Authority, directly or indirectly this comprises Directors and the CEO. Key management personnel includes all Responsible persons as listed in Note 8.4.

The compensation detailed below excludes the salaries and benefits the Portfolio Minister receives. The Minister's remuneration and allowances is set by the *Parliamentary Salaries and Superannuation Act 1968* and is reported within the Department of Parliamentary Services' Financial Report.

Remuneration comprises employee benefits in all forms of consideration paid, payable or provided by the entity, or on behalf of the entity, in exchange for services rendered, and is disclosed in the following categories.

**Short-term employee benefits** include amounts such as wages, salaries, annual leave or sick leave that are usually paid or payable on a regular basis, as well as non-monetary benefits such as allowances and free or subsidised goods or services.

**Post-employment benefits** include pensions and other retirement benefits paid or payable on a discrete basis when employment has ceased.

**Other long-term benefits** include long service leave, other long-service benefit or deferred compensation.

Compensation of KMPs	2022	2021
Short-term employee benefits	337,128	352,670
Post-employment benefits	33,006	29,609
Other long-term benefits	5,297	5,137
Total	375,431	387,416

### Transactions with key management personnel and other related parties

Given the breadth and depth of Authority activities, related parties transact with the Victorian public sector in a manner consistent with other members of the public e.g. stamp duty and other government fees and charges. Further employment of processes within the Victorian public sector occur on terms and conditions consistent with the *Public Administration Act 2004* and Codes of Conduct and Standards issued by the Victorian Public Sector Commission. Procurement processes occur on terms and conditions consistent with the Victorian Government Procurement Board requirements. Outside of normal citizen type transactions with the Authority, there were no significant related party transactions or balances that involved key management personnel, their close family members and their personal business interest.

### 8.7 Remuneration of auditors

	2022 \$000	2021 \$000
Victorian Auditor-General's Office for audit of financial statements	24	23
Internal audit costs	25	39
Total auditors' remuneration	49	62

## Notes to the financial statements for the year ended 30 June 2022

### 8.8 Subsequent events

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

The continuing COVID-19 Health Pandemic is not expected to significantly affect the operations, the results of those operations, or the state of affairs of the Authority in future financial years.

### 8.9 Change in accounting policies

#### 8.9.1 Initial Application of the International Finance Reporting Standards Interpretations Committee (IFRS) Agenda Decisions

##### Software-as-a-Service (SaaS) arrangements

The international Finance Reporting Standards Interpretations Committee (IFRIC) has issued two final agenda decisions which impact SaaS arrangements:

- 'Customer's right to receive access to the supplier's software hosted on the cloud (March 2019) – this decision considers whether a customer receives a software asset at the contract commencement date or a service over the contract term.'
- Configuration or customisation costs in a cloud computing arrangement (April 2021) – this decision discusses whether configuration or customisation expenditure relating to SaaS arrangements can be recognised as an intangible asset and if not, over what time period the expenditure is expensed.

The Authority's accounting policy has historically been to capitalise all costs related to SaaS arrangements as intangible assets in the Balance Sheet. The adoption of the above agenda decisions has resulted in a reclassification of intangible assets to the recognition as an expense in the Comprehensive Operating Statement, impacting both the current and prior periods presented.

##### Impact of Change in Accounting Policy

For the current year, \$201K of costs previously capitalised under AASB 138 as an intangible asset have been fully written-off and expensed as information technology and communication expenses (refer note 3.4). As the amount expensed is not considered material, no retrospective adjustment and re-statement of prior year balances has been made.

### 8.10 Economic dependency

Goulburn Broken CMA is dependent on the Department of Environment, Land, Water and Planning for the majority of its revenue used to operate the entity. At the date of this report, the Board of Directors has no reason to believe the Department of Environment, Land, Water and Planning will not continue to support the CMA.

### 8.11 Australian Accounting Standards issued that are not yet effective

Certain new and revised accounting standards have been issued but are not effective for the 2021-22 reporting period. These accounting standards have not been applied to the Financial Statements. The Authority is reviewing its existing policies and assessing the potential implications of these accounting standards which include:

Topic	Key requirements	Applicable for annual reporting periods beginning on or after	Estimated impact on Financial Statements
AASB 17 Insurance Contracts	<p>The new Australian standard eliminates inconsistencies and weaknesses in existing practices by providing a single principle based framework to account for all types of insurance contracts, including reissuance contract that an insurer holds. It also provides requirements for presentation and disclosure to enhance comparability between entities.</p> <p>The Australian Accounting Standards Board has currently issued an Exposure Draft (ED) 319 – Insurance Contracts in the Public Sector, proposing public-sector modifications to AASB 17 to facilitate the application by public sector entities. It is proposed that public sector entities would apply AASB 17 to annual periods beginning on or after 1 July 2025, with earlier application permitted.</p>	1 Jan 2025	The Authority is in the process of analysing the impacts of this Standard. However, it is not anticipated to have a material impact. The Authority will not early adopt the Standard.

## Notes to the financial statements for the year ended 30 June 2022

Topic	Key requirements	Applicable for annual reporting periods beginning on or after	Estimated impact on Financial Statements
AASB 2020-1 Amendments to Australian Accounting Standards – Classification of Liabilities as Current or Non Current	<p>This Standard amends AASB 101 to clarify requirements for the presentation of liabilities in the statement of financial position as current or non-current. A liability is classified as non-current if an entity has the right at the end of the reporting period to defer settlement of the liability for at least 12 months after the reporting period.</p> <p>The meaning of settlement of a liability is also clarified.</p> <p>AASB 2020-6 Amendments to Australian Accounting Standards – Classification of Liabilities as Current or Non current – Deferral of Effective Date was issued in August 2020 and defers the effective date to annual reporting periods beginning on or after 1 January 2023 instead of 1 January 2022, with earlier application permitted.</p>	1 January 2023.	The assessment has indicated that there will be no significant impact on the Authority's financial statements. The Authority will not early adopt the Standard.
Several other amending standards and AASB interpretations have been issued that apply to future reporting periods.	<p>AASB 2020-3 Amendments to Australian Accounting Standards - Annual Improvements 2018-2020 and Other Amendments.</p> <p>AASB 2021-2 Amendments to Australian Accounting Standards – Disclosure of Accounting Policies and Definitions of Accounting Estimates.</p> <p>AASB 2021-6 Amendments to Australian Accounting Standards – Disclosure of Accounting Policies: Tier 2 and Other Australian Accounting Standards.</p> <p>AASB 2021-7 Amendments to Australian Accounting Standards – Effective Date of Amendments to AASB 10 and AASB 128 and Editorial Corrections.</p>	1 January 2023	The assessment has indicated that there will be no significant impact on the Authority's financial statements.

### 8.12 Glossary of technical terms

The following is a summary of the major technical terms used in this report.

**Actuarial gains or losses on superannuation defined benefit plans** are changes in the present value of the superannuation defined benefit liability resulting from:

- experience adjustments (the effects of differences between the previous actuarial assumptions and what has actually occurred); and
- the effects of changes in actuarial assumptions.

**Administered item** generally refers to a Authority lacking the capacity to benefit from that item in the pursuit of the entity's objectives and to deny or regulate the access of others to that benefit.

**Amortisation** is the expense that results from the consumption, extraction or use over time of a non-produced physical or intangible asset. This expense is classified as an 'other economic flow'.

**Associates** are all entities over which an entity has significant influence but not control, generally accompanying a shareholding and voting rights of between 20 per cent and 50 per cent.

**Borrowings** refers to interest-bearing liabilities mainly raised from public borrowings raised through the Treasury Corporation of Victoria, lease liabilities, service concession arrangements and other interest-bearing arrangements. Borrowings also include non interest-bearing advances from government that are acquired for policy purposes.

**Commitments** include those operating, capital and other outsourcing commitments arising from non-cancellable contractual or statutory sources.

**Comprehensive result** is the amount included in the operating statement representing total change in net worth other than transactions with owners as owners.

**Controlled item** generally refers to the capacity of an Authority to benefit from that item in the pursuit of the entity's objectives and to deny or regulate the access of others to that benefit.

**Current grants** are amounts payable or receivable for current purposes for which no economic benefits of equal value are receivable or payable in return.

## Notes to the financial statements for the year ended 30 June 2022

**Depreciation** is an expense that arises from the consumption through wear or time of a produced physical or intangible asset. This expense is classified as a 'transaction' and so reduces the 'net result from transaction'.

**Effective interest method** is the method used to calculate the amortised cost of a financial asset and of allocating interest income over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset or, where appropriate, a shorter period.

**Employee benefits expenses** include all costs related to employment including wages and salaries, fringe benefits tax, leave entitlements, redundancy payments, defined benefits superannuation plans, and defined contribution superannuation plans.

**Ex gratia expenses** mean the voluntary payment of money or other non-monetary benefit (e.g. a write off) that is not made either to acquire goods, services or other benefits for the entity or to meet a legal liability, or to settle or resolve a possible legal liability or claim against the entity.

**Finance lease** is a lease that transfers substantially all the risks and rewards incidental to ownership of an underlying asset.

**Financial asset** is any asset that is:

- a) cash;
- b) an equity instrument of another entity;
- c) a contractual right:
  - to receive cash or another financial asset from another entity; or
  - to exchange financial assets or financial liabilities with another entity under conditions that are potentially favourable to the entity; or
- d) a contract that will or may be settled in the entity's own equity instruments and is:
  - a non-derivative for which the entity is or may be obliged to receive a variable number of the entity's own equity instruments; or
  - a derivative that will or may be settled other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of the entity's own equity instruments.

**Financial instrument** is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

**Financial liability** is any liability that is:

- a) a contractual obligation:
  - to deliver cash or another financial asset to another entity; or
  - to exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavourable to the entity; or
- b) a contract that will or may be settled in the entity's own equity instruments and is:
  - a non-derivative for which the entity is or may be obliged to deliver a variable number of the entity's own equity instruments; or
  - a derivative that will or may be settled other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of the entity's own equity instruments. For this purpose, the entity's own equity instruments do not include instruments that are themselves contracts for the future receipt or delivery of the entity's own equity instruments.

**Financial statements** in the Model report comprises:

- a) a balance sheet as at the end of the period;
- b) a comprehensive operating statement for the period;
- c) a statement of changes in equity for the period;
- d) a cash flow statement for the period;
- e) notes, comprising a summary of significant accounting policies and other explanatory information;
- f) comparative information in respect of the preceding period as specified in paragraph 38 of *AASB 101 Presentation of Financial Statements*; and
- g) a statement of financial position as at the beginning of the preceding period when an entity applies an accounting policy retrospectively or makes a retrospective restatement of items in its financial statements, or when it reclassifies items in its financial statements in accordance with paragraphs 41 of AASB 101.

**Grant expenses and other transfers** are transactions in which one unit provides goods, services, assets (or extinguishes a liability) or labour to another unit without receiving approximately equal value in return. Grants can either be operating or capital in nature.

While grants to governments may result in the provision of some goods or services to the transferor, they do not give the transferor a claim to receive directly benefits of approximately equal value. For this reason, grants are referred to by the AASB as involuntary transfers and are termed non-reciprocal transfers. Receipt and sacrifice of approximately equal value may occur, but only by coincidence. For example, governments are not obliged to provide commensurate benefits, in the form of goods or services, to particular taxpayers in return for their taxes.

Grants can be paid as general-purpose grants, which refer to grants that are not subject to conditions regarding their use. Alternatively, they may be paid as specific purpose grants, which are paid for a particular purpose and/or have conditions attached regarding their use.

## Notes to the financial statements for the year ended 30 June 2022

**General government sector** comprises all government departments, authorities, offices and other bodies engaged in providing services free of charge or at prices significantly below their cost of production. General government services include those that are mainly non-market in nature, those that are largely for collective consumption by the community and those that involve the transfer or redistribution of income. These services are financed mainly through taxes, or other compulsory levies and user charges.

**Interest expense** represents costs incurred in connection with borrowings. It includes interest on advances, loans, overdrafts, bonds and bills, deposits, interest components of lease repayments, service concession financial liabilities and amortisation of discounts or premiums in relation to borrowings.

**Interest income** includes unwinding over time of discounts on financial assets and interest received on bank term deposits and other investments.

**Leases** are rights conveyed in a contract, or part of a contract, the right to use an asset (the underlying asset) for a period of time in exchange for consideration.

**Net result** is a measure of financial performance of the operations for the period. It is the net result of items of revenue, gains and expenses (including losses) recognised for the period, excluding those classified as 'other non-owner movements in equity'.

**Non-financial assets** are all assets that are not financial assets. It includes inventories, land, buildings, infrastructure, road networks, land under roads, plant and equipment, cultural and heritage assets, intangibles and biological assets such as commercial forests.

**Operating result** is a measure of financial performance of the operations for the period. It is the net result of items of revenue, gains and expenses (including losses) recognised for the period, excluding those that are classified as 'other non-owner movements in equity'. Refer also to 'net result'.

**Other economic flows included in net result** are changes in the volume or value of an asset or liability that do not result from transactions. In simple terms, other economic flows are changes arising from market remeasurements. They include gains and losses from disposals, revaluations and impairments of non-current physical and intangible assets; fair value changes of financial instruments and agricultural assets; and depletion of natural assets (non produced) from their use or removal.

**Other economic flows – other comprehensive income** comprises items (including reclassification adjustments) that are not recognised in net result as required or permitted by other Australian Accounting Standards. They include changes in physical asset revaluation surplus; share of net movement in revaluation surplus of associates and joint ventures; and gains and losses on remeasuring available-for-sale financial assets.

**Payables** includes short and long-term trade debt and accounts payable, grants, taxes and interest payable.

**Produced assets** include buildings, plant and equipment, inventories, cultivated assets and certain intangible assets. Intangible produced assets may include computer software, motion picture films and research and development costs (which does not include the start-up costs associated with capital projects).

**Receivables** include amounts owing from government through appropriation receivable, short and long-term trade credit and accounts receivable, accrued investment income, grants, taxes and interest receivable.

**Sales of goods and services** refers to income from the direct provision of goods and services and includes fees and charges for services rendered, sales of goods and services, fees from regulatory services and work done as an agent for private enterprises. It also includes rental income under leases and on produced assets such as buildings and entertainment, but excludes rent income from the use of non-produced assets such as land. User charges includes sale of goods and services income.

**Supplies and services** generally represent cost of goods sold and the day-to-day running costs, including maintenance costs, incurred in the normal operations of the Authority.

**Taxation** income represents income received from the State's taxpayers and includes:

- payroll tax, land tax and duties levied principally on conveyances and land transfers;
- gambling taxes levied mainly on private lotteries, electronic gaming machines, casino operations and racing;
- insurance duty relating to compulsory third-party, life and non-life policies;
- insurance company contributions to fire brigades;
- motor vehicle taxes, including registration fees and duty on registrations and transfers;
- levies (including the environmental levy) on statutory corporations in other sectors of government; and
- other taxes, including landfill levies, licence and concession fees.

**Transactions** are those economic flows that are considered to arise as a result of policy decisions, usually an interaction between two entities by mutual agreement. They also include flows into an entity such as depreciation, where the owner is simultaneously acting as the owner of the depreciating asset and as the consumer of the service provided by the asset. Taxation is regarded as mutually agreed interactions between the government and taxpayers. Transactions can be in kind (e.g. assets provided/given free of charge or for nominal consideration) or where the final consideration is cash. In simple terms, transactions arise from the policy decisions of the Government.



# Appendix 1: Understanding progress and ratings

Compiled by Rod McLennan.

Natural Resource Management (NRM) decisions to create or respond to change are usually made in context of a complex and dynamic system of people and nature with countless relationships. The operating environment is highly integrated and changing and there are significant uncertainties in measuring natural resources and evaluating progress. Well-constructed scorecards with summary narratives are distilled evaluations that help many stakeholders make better shared choices, while promoting transparency and accountability.

## Shared mental models of progress and a desired future

### Resilience model

**Problem:** While in everyday life individuals use their own ways of viewing the state of a complex world and possible future states, sharing views (based on solid evidence) can be extremely challenging.

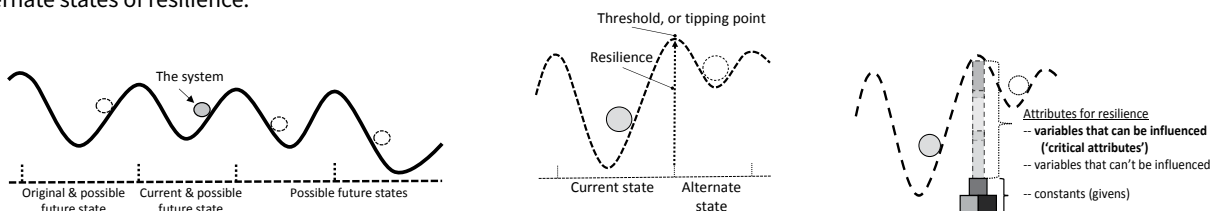
**Solution:** Goulburn Broken CMA uses a resilience model to describe the current state, identify desired long-term future states, and determine required actions.

Many of the most important elements underpinning a resilience model, such as stakeholder relationships, consideration of system tipping points, and integration across NRM themes, have been emphasised by Goulburn Broken Catchment communities since salinity management plans were founded on joint action in the late 1980s (Northage 2014). Although it was not explicitly stated and there was no roadmap to follow, resilience was pursued by these pioneers of holistic catchment management. A culture of interagency and community-government collaboration was fostered through strong and insightful leadership at all levels within Victorian government and across regional and local communities.

Technology advances have transformed how people communicate and relate. As the number of interactions escalate, relationships can be diluted. Goulburn Broken CMA continues to integrate the efforts of stakeholders to holistically manage the Catchment and has formalised use of the resilience model: it is central to the Regional Catchment Strategy 2013-2019 and its current renewal. The approach emerged from Goulburn Broken CMA's sustainability and ecosystem services thinking.

Resilience is 'the ability of the Catchment's people and environment to absorb a shock or setback and to flourish in spite of it, maybe even because of it' (R.M. Williams Outback, Apr/May 2017). It does not mean 'ploughing through and doing what you have always done' (Corocher in Outback Apr/May 2017).

The resilience model can be easily shared: people can relate the model to phases and other aspects of their personal lives, such as alternate states for emotions, finances, relationships, and physical health. A 'resilience roller-coaster' shows alternate states of resilience.



The resilience model lends itself neatly to a small number of high-level choices for managing systems in the face of unforeseen and shifting circumstances: restore, persist, accept change and adapt while preparing to transform, or drive transformation.

In NRM, **system examples** include biodiversity (page 52), community (page 28), and social-ecological (page 7). High-level choices for these interconnected systems have been described as visions and long-term goals, such as 'increase the population viability of 20 flagship species' and '65 per cent reduction in total phosphorus exported from the catchment'.

### Resilience, tipping points, risks and opportunities

**Problem:** While visions and long-term goals have been described for NRM systems for 30 years or more, it has been challenging to build the bridge (a simply understood model) between high-level intent and required short and long-term actions: the links between cause and effect are often obscure.

**Solution:** A **risk mitigation model** that considers the risk of the system being in an undesirable state in the long term (more than 10 years) focuses on problems, opportunities and evidence that are material (high consequence), helping to eliminate 'noise'. The risk mitigation model is also familiar, making the step between risk and action (and progress) easy to communicate.

Determining the **risk of the system being in an undesirable state** in the long term requires consideration of **thresholds (tipping points)**, likelihood and consequences, uncertainties with data and what desirable futures are, and risk and opportunities given both current investment (from government and other sources, including in-kind) and no investment.

Some attributes that define a system's resilience are constants that cannot be changed, such as location downstream or upstream of a significant tributary. Other attributes vary, with some that cannot be readily influenced, such as rainfall or market conditions, and others that can be influenced, such as native vegetation extent and wetland inundation.

#### A critical attribute for long-term resilience is:

- critical to how the system functions
- at a level and trajectory that places the delivery of highly valued services at risk in the long term (because the system is at long-term risk of tipping into an undesirable state)
- influenced by actions that can be easily defined
- 'concrete' enough to readily convey an image or concept that is readily shared and not prone to misinterpretation
- measurable over the medium term (about 5 years), or at least enables a sense of progress to be conveyed.

## Evaluation, planning levels and decision-making cycles

Catchment management decisions have vastly different timeframes, from daily operational decisions by extension officers to once-in-six-year strategic decisions by the Goulburn Broken CMA Board. 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. While different NRM funders have

different ways of operating and different and changing data requirements, Goulburn Broken CMA orders information according to the equation:  $\text{Outputs} \times \text{Assumptions} = \text{Outcomes}$ , to document progress in implementing actions and to update understanding of progress in achieving desired long-term states of system resilience, including contributions by various partners to outcomes (including overall condition).

### Evidence for three levels of evaluation (and decision-making)

Evaluation level	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.
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 (especially on critical attributes) listed in strategies.
3 Catchment condition	What state is the system we are influencing in? What is the risk that the system will not be in the desired state in the long term? 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?	System state; risk trends; tipping points; indicators of resilience such as critical attribute contribution levels; responses such as restoration, prevention, maintenance, driving transformation, acceptance of change and adaptation.

### Rating progress and performance

Details on each of the investment areas within sections of this annual report justify ratings provided. Further details are on Goulburn Broken CMA's website [www.gbcma.vic.gov.au](http://www.gbcma.vic.gov.au) and in relevant RCS sub-strategies.

#### Rating annual performance

Annual performance is rated by measuring outputs achieved against annual targets. Targets are determined by funds available and are derived from the relevant long-term strategy. It is usually not known what funds are available beyond one year. There is usually a high degree of certainty in rating annual performance within a single investment area when funding is known, outputs and other indicators are well documented, and accounting mechanisms are sound.

Annual targets and achievements in this report do not include outputs delivered beyond Goulburn Broken CMA's direct control, especially by landholders who voluntarily undertake works. Data on these external outputs is also critical to inform long-term decisions and is increasingly captured. A complete list of detailed outputs is in Appendix 3 and detailed outputs are listed in sections devoted to each investment area throughout this report.

#### Rating long-term progress

Long-term progress ratings are needed for three separate areas of focus for Goulburn Broken CMA decision-making.

**1 Long-term strategy implementation stage.** Strategies vary in formality, comprehensiveness, and funds to implement them. Implementation stage considers aspects such as degree of integration with other NRM themes, involvement of stakeholders, and quantities of outputs achieved compared to desired levels.

**2 Catchment condition.** Goulburn Broken CMA chooses investment areas to frame ratings of catchment condition because they align well with how the CMA and many funders 'think' (compartmentalise NRM) and invest. From 2016-17, ratings of critical attributes' contribution level and the associated long-term risk to the desired state of resilience are explicitly listed as indicators of catchment condition (see long-term scorecards throughout this report). Other high-level indicators of condition, such as viability of threatened species and gross value of agricultural production, are also factored into ratings.

The **benchmark system state** is the desired state: this varies from many NRM assessments that use 'natural' or 'pre-European settlement' as the benchmark. To get a sense of long-term progress over a timeframe meaningful for NRM, critical attributes' contribution to system function are rated for 1990 as well as the current year.

No explicit quantitative weightings have been applied when 'rolling-up' critical attributes to arrive at the overall catchment condition for an investment area. Assessment by individual social-ecological system areas (see page 8) and subsequent rolling-up has so far only been done for the Agricultural Floodplains (see Sustainable Irrigation Program).

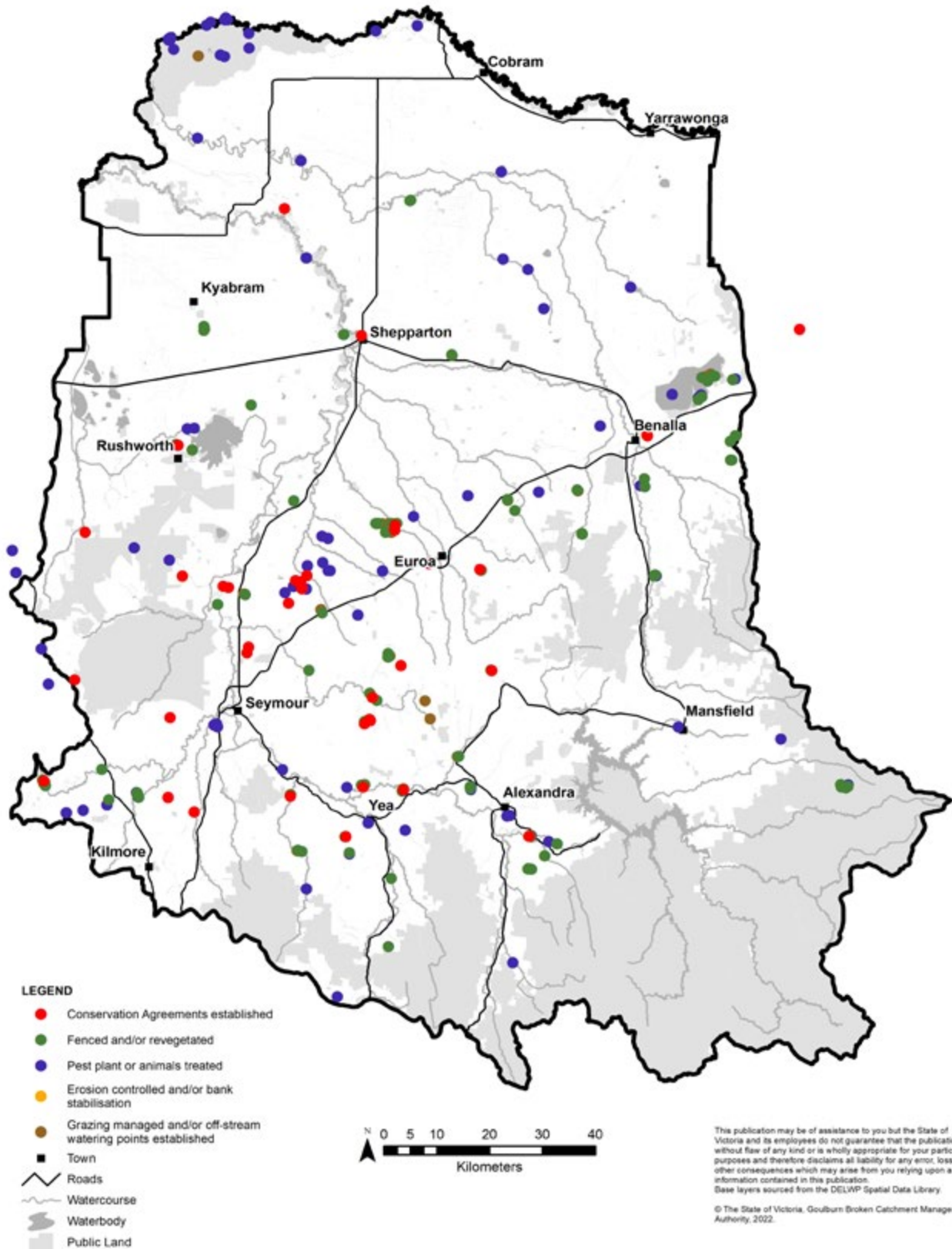
Structuring and communicating long-term progress are works-in-progress that try to retain the integrity of Goulburn Broken CMA's evaluation efforts over two decades while aligning with emerging national and state approaches.

**3 Organisational business condition.** Goulburn Broken CMA is an important contributor to catchment condition, and several indicators are similarly rolled-up to rate condition in terms of human resources and governance (and annual performance; see pages 88 and 96).

## Appendix 2: Works

1 July 2021 to 30 June 2022

This map shows onground works completed in 2021-22 through Goulburn Broken CMA programs. These works relate to outputs listed in tables throughout this Annual Report. Some major works under Waterways, Floodplain Management and Sustainable Irrigation Programs are not shown. Ongoing works that landowners fully fund themselves are not shown. Goulburn Broken CMA is investigating ways to capture such important contributions. The points indicated on this map are an approximate location of where the works occurred only.



## Appendix 3: Outputs - detailed list of achievements

Standard GB Threat or Impact Managed	Output	Land & Biodiversity			
		Target <sup>i</sup>	Achieved	% Achieved	
Threat					
Land and water use practices					
Stock grazing (ha = terrestrial; km = riparian)	Fence terrestrial remnant vegetation (ha)	217	157	73	
	Fence wetland remnant (ha)				
	Fence stream/river remnant (ha)				
	Fence stream/river remnant (km)				
	Off-stream watering (no.)				
	Binding Management Agreement (licence, Section 173, covenant) (ha) <sup>xvi</sup>				
Induced Threat					
Saline water & high watertables					
Surface water <sup>iii</sup>	Laser levelling (ha) <sup>ii</sup>				
	Drain – primary built (including hybrid; km) <sup>iv</sup>				
	Drain – community built (km)				
	Weir – replace (no.)				
	Farm reuse systems installed (no.) <sup>v</sup>				
	Drain – additional water diverted from regional drains (ML)				
	Irrigation systems – improved (ha) <sup>vi</sup>				
	Pasture – plant (ha)				
Sub-surface water	Groundwater pumps - public installed (new; no.)				
	Groundwater pumps - private installed (new; no.)				
	Volume water pumped - increase (ML)				
	Tile drains – install (ha)				
	Revegetation - plantation / farm forestry (ha)				
Nutrient-rich & turbid water & suspended solids	Waste water treatment plants - install (no.)				
	Stormwater management projects (no.) <sup>vii</sup>				
Instream and near-stream erosion	Bed and bank protection actions (km) <sup>viii</sup>				
	Instream & tributary erosion controlled (km)				
Changed flow pattern	Environmental water use (ML) <sup>ix</sup>				
	Weeds – woody weed management (ha)	1,541	1,774	115	
Weed invasion	Weeds – aquatic weeds controlled/eradicated (km)				
	Targeted infestations of weeds in high priority areas covered by control programs (ha) <sup>x</sup>	1,541	1,803	117	
Pest animals	Pest animal control (ha) <sup>xi</sup>	117,807	157,242	133	
Impact					
Habitat loss - terrestrial	Revegetation - plant natives within or next to remnants (ha) <sup>xii</sup>	285	336	118	
	Revegetation - plant natives away from remnants (ha)				
	Fish release (no.)				
	Vertical slot fishway (no.)				
Habitat loss – instream	Rock ramp fishway (no.)				
	Fish barrier removal (no.)				
	Instream habitat (no.) <sup>xiii</sup>				
Habitat loss – wetlands	Reinstate flood regime (ML) <sup>xiv</sup>				
	Construct new wetland (ha)				
Habitat loss – threatened species	Threatened Species Recovery Plan and Action Statements (no. projects)				
Planning	Whole farm plans (no.) <sup>xv</sup>				

i Targets are determined by considering levels of government funding as listed in the Corporate Plan and any subsequent adjustments over the financial year.

ii Assumptions: 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)]; 2014-15, 2015-16, 2016-17 & 2017-18 = Farm Water Program's SIR onground achievements (478, 1,963, 360 & 1,734) + 60 per cent of area put under Whole Farm Plans [new (4,143, 2,576, 3,289 & 2,843) + modernised (2,572, 2,037, 3,905 & 2,632) – Farm Water Program's SIR onground achievements (478, 1,963, 360 & 1,734)]. Assumption change from 2018-19 is 50 per cent of area put under Whole Farm Plans (not 60). 20-21 Target = 50 per cent of area to be put under Whole Farm Plans [no. (15) x average area of Whole Farm Plans (91)].

iii Surface water management enables the removal of excess rainfall runoff from irrigated lands, alleviating soil salinity. As part of an overall management plan for nutrients, nutrient loads are managed by collecting and reusing water from drains. Nutrient loads are monitored against the Goulburn Broken Water Quality Strategy nutrient target for drains.

iv 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.

v Reuse dams allow for the collection of high nutrient runoff and re-irrigation, reducing the water and nutrient loads leaving the farm. Figures include Farm Water Program installations. In 2014-15 the number of new farm reuse systems installed is assumed to be: 67 per cent of projects install a new system and 33 per cent reconnect the project area to an existing system. In 2013-14 the number of new systems was assumed to be: 100 per cent of projects install a new system i.e. new systems and extensions of existing systems were both counted as 'new systems'.

vi Assumptions: From 2014-15, area improved = laser levelling (which itself includes an assumption based on whole farm plan area - see footnote iii) + pressurised irrigation systems (micro or drip + irrigation); 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]. In 2019-20, area improved included 210 hectares of soil moisture monitoring and 2020-21 included 1,033ha.

vii Stormwater management projects are undertaken on a one-to-one funding basis with local government.

viii From 2013-14, the actions for erosion control have been bundled with this to make the tally.

2021-22									Total achieved							
Sustainable Irrigation			Waterways & Floodplain			Total Catchment			2020-21	2019-20	2018-19	2017-18	2016-17	2015-16	2014-15	2013-14
Target <sup>1</sup>	Achieved	% Achieved	Target <sup>1</sup>	Achieved	% Achieved	Target <sup>1</sup>	Achieved	% Achieved								
						217	157	73	365	547	331	589	696	468	385	1,004
			2	4	200	2	4	200		8	2		137	3	168	128
			-	90			90		153	112	166	161	294	244	141	87
			10	19	186	10	19	186	36	33	48	26	35	38	70	42
			7	10	143	7	10	143	32	22	17	17	25	19	15	3
-	67					-	67		11	6		104	18	70	112	0
1,365	719	53				1,365	719	53	3,676	7,580	2,538	3,979	4,460	3,553	4,220	6,671
									55	17	32	4				
											5					
												36	5	51	9	64
-	719					-	719		4,947	7,790	2,538	5,174	4,460	3,553	4,745	7,330
									0	0	0.30	0.51	0.62	0.91	0.40	0.20
													0.62	0.91	0.60	1.00
			-	934,367			934,367		628,691	772,400	449,506	812,240	479,164	698,264	339,318	714,378
256	0	0	41	46	113	1,838	1,821	99	11,026	3,326	1,555	4,060	7,481	1,363	2,317	210
									8	28	9	10	9	14	97	3
256	256	100	51	49	96	1,848	2,108	114	11,533	5,773	2,099	4,441	8,529	2,894	3,359	3,643
						117,807	157,242	133	124,720	112,621	1,429	4,019	10,423	7,321	22,880	31,201
			31	37	122	316	374	118	607	634	625	413	487	750	549	1,211
				617												
																2
			14	0	0	14	0	0	20	259	581	627	363	334	357	337
			-	415,267		-	415,267		379,114	362,512	174,355	415,010	254,188	439,740	500	363,436
30	21	70				30	21	70	61	117	61	55	74	51	71	79

ix 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.

x This includes 'Weeds woody weed management'. 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. 2013-14 figures do not include 12,880 hectares for weeds and 6,175 hectares for rabbit control. 2014-15 achievements do not include 10,060 hectares for weeds and 6,850 hectares for rabbit control completed by DEDJTR Biosecurity Victoria. 2015-16 achievements do not include 11,820 hectares for weeds and 7,480 hectares for rabbit control completed by DEDJTR Biosecurity Victoria. 2016-17 achievements do not include 7,781 hectares for weeds and 2,911 hectares for rabbit control completed by DEDJTR Biosecurity Victoria. 2017-18 achievements do not include 11,001 hectares for weeds and 6,400 hectares for rabbit control completed by DEDJTR Biosecurity Victoria. 2018-19 achievements do not include 20,995 hectares for weeds and 3,486 hectares for rabbit control completed by DJPR AgVic Biosecurity & Agriculture Services. 2019-20 achievements do not include 14,000 hectares for weeds and 1806 hectares for rabbit control completed by DJPR AgVic Biosecurity & Agriculture Services. 2020-21 achievements

do not include 19,234 hectares for weeds and 3002 hectares for rabbit control completed by DJPR AgVic Biosecurity & Agriculture Services. 2021-22 achievements do not include 7770 hectares for weeds and 1830 hectares for rabbit control completed by DJPR AgVic Biosecurity & Agriculture Services.

xi Output included for the first time in 2018-19, superseding the two separate outputs of fox and rabbit control, to encompass the broader range of pest animals being controlled.

xii 2013-14, 2014-15, 2015-16 & 2016-17 achievements do not include 1,080, 175, 186.8 & 624.6 hectares of revegetation achieved outside the Catchment through the Sand Ridge Woodlands project that Goulburn Broken CMA delivered in partnership with Murray Local Land Services and NSW National Parks and Wildlife Service.

xiii Output included for the first time in 2015-16 as 'in-stream woody habitat - snags'. Updated to 'in-stream habitat' in 2017-18 to include other habitat structures undertaken in 2017-18 such as groynes and rock seeding.

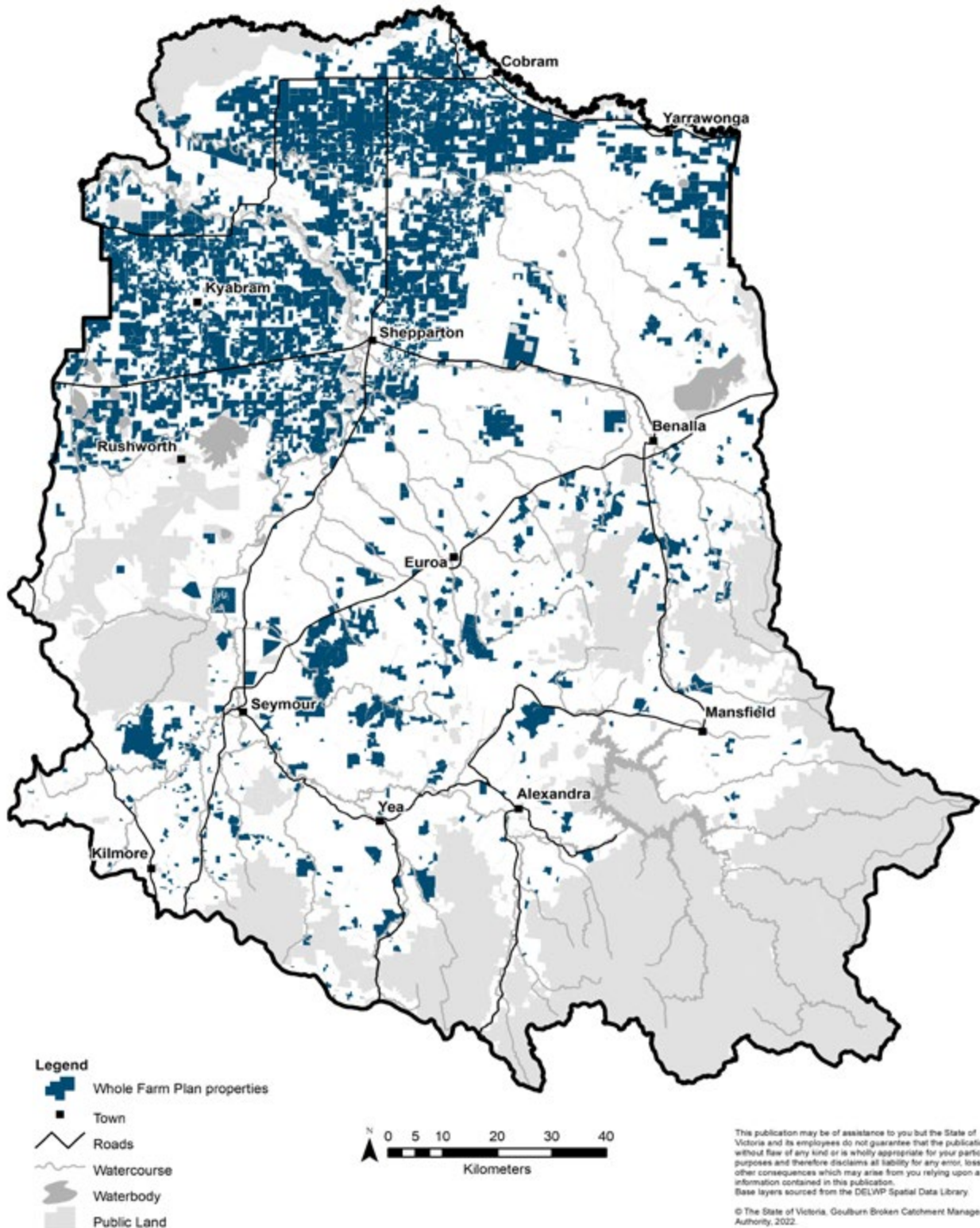
xiv Figures for years prior to 2018-19 entered retrospectively in 2018-19.

xv 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.

## Appendix 4: Properties covered by a whole farm plan

to 30 June 2022

This map shows the properties covered by a whole farm plan or modernised whole farm plan completed since the start of the Program.



## Appendix 5: Major Strategic References

### Legislation

#### Federal legislation

*Aboriginal and Torres Strait Islander Heritage Protection Act 1984*

*Age Discrimination Act 2004*

*Australian Heritage Commission Act 1975 (Register of the National Estate)*

*Disability Discrimination Act 1992*

*Environment Protection and Biodiversity Conservation Act 1999*

*Native Title Act 1993*

*Racial Discrimination Act 1975*

*Sex Discrimination Act 1984*

*Water Act 2007*

*Water Amendment Act 2008*

#### State legislation

*Aboriginal Heritage Act, 2006*

*Aboriginal Heritage Regulations 2007*

*Aboriginal Heritage Regulations 2018*

*Alpine Resorts (Management) Act 1997*

*Building Regulations 1996*

*Catchment and Land Protection Act 1994*

*Charter of Human Rights and Responsibilities Act 2006*

*Climate Change Act 2010*

*Conservation, Forests and Lands Act 1987*

*Crown Land (Reserves) Act 1978*

*Environment Protection Act 1970*

*Equal Opportunity Act 2010*

*Financial Management Act 1994*

*Fisheries Act 1995*

*Flora and Fauna Guarantee Act 1988*

*Flora and Fauna Guarantee Amendment Act 2019*

*Forests Act 1958*

*Fair Work Act 2009*

*Gender Equality Act 2020*

*Heritage Rivers Act 1992*

*Land Act 1958*

*Mineral Resources (Sustainable Development) Act 1990*

*Murray-Darling Basin Act 1993*

*National Parks Act 1975*

*Occupational Health and Safety Act 2004*

*Parks Victoria Act 1998*

*Privacy and Data Protection Act 2014*

*Planning and Environment Act 1987*

*Public Administration Act 2004*

*Public Interest Disclosures Act 2012*

*Reference Areas Act 1978*

*State Environment Protection Policy (Groundwaters of Victoria)*

*State Environment Protection Policy (Waters of Victoria)*

*Subdivision Act 1988*

*Sustainable Forests (Timber) Act 2004*

*Traditional Owner Settlement Act 2010*

*Victorian Conservation Trust Act 1972*

*Victorian Environment Assessment Council Act 2001*

*Victorian Equal Opportunity and Human Rights Act*

*Water Act 1989*

*Wildlife Act 1975 (under review)*

*Workplace Injury Rehabilitation and Compensation Act 2013*

*Yorta Yorta Cooperative Management Agreement 2004*

## Appendix 5: Major Strategic References (continued)

### 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 1971

---

Republic of Korea Australia Migratory Bird Agreement 2009

---

UN Declaration on the rights of Indigenous Peoples 2007

---

#### Federal

---

A Directory of Important Wetlands in Australia (2001)

---

A Framework for Determining Commonwealth Environmental Watering Actions 2009

---

Agricultural Competitiveness White Paper (2015)

---

Australia's Strategy for Nature 2019-2030

---

Australia's Native Vegetation Framework 2012

---

Australian Government Indigenous Advancement Strategy 2014

---

Australian Pest Animal Strategy 2017-2027

---

Australian Weed Strategy 2017- 2027

---

Barmah-Millewa Environmental Management Plan 2005

---

Basin Salinity Management Strategy 2030 (2001-2015)

---

COAG Closing the Gap initiative 2008

---

Empowered Communities: Empowered Peoples – Design report (2015)

---

Living Murray First Step Decision (2003)

---

Murray-Darling Basin Plan 2012

---

Murray-Darling Native Fish Management Strategy 2004

---

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 Soil Strategy 2021

---

National Water Quality Management Strategy (ARMCANZ and ANZECC 1992)

---

Public Entity Executive Remuneration Policy

---

Reconciliation Australia – Economic Benefits of closing the gap in Indigenous employment outcomes (2014)

---

Strategy for Australia's National Reserve System 2009–2030

---

The Clean Energy Future Initiative (2012)

---

Threatened Species Strategy and Action Plan (2015)

---

Wetlands Policy of the Commonwealth Government of Australia 1997

---

[www.thelivingmurray.gov.au](http://www.thelivingmurray.gov.au)

---

#### State

---

Aboriginal Participation Guidelines for Victorian Catchment Management Authorities 2015 and Implementation Plan 2016

---

Advisory lists of rare and threatened species in Victoria

---

Agriculture Victoria Strategy: Supporting Victoria's Agriculture 2017

---

Alpine Resorts Strategic Plan 2020-2025

---

Biosecurity Victoria Strategic Plan for Victoria 2009

---

Community Engagement and Partnerships Framework for Victoria's Catchment Management Authorities 2013 and Toolkit 2017

---

DELWP Guide to Good Governance – board members

---

Food & Fibre Strategy 2016

---

Indigenous Partnership Framework 2007-10 (reviewed 2010)

---

Invasive Plants and Animal Policy Framework 2010

---

Native Vegetation Net gain accounting first approximation report 2008 (DSE)

---

Our Catchments, Our Communities – Integrated Catchment Management in Victoria 2016-19

---

Permitted Clearing of Native Vegetation – Biodiversity Assessment Guidelines 2013

---

Policy for Sustainable Recreation and Tourism on Victoria's Public Land 2002

---

Protecting Victoria's Environment – Biodiversity 2037 (2017)

---

Regional Riparian Action Plan (2015)

---

Soil Health Strategy 2012

---

Sustainability Charter for Victoria's State Forests 2006

---

Threatened Species Recovery Plans

---

Victoria's Native Vegetation Management - A. Framework for Action

---

Victoria's Nature based Tourism Strategy 2008–2012

---

Victoria's Salinity Management Framework 2000

---

Victorian Bushfire Strategy 2008

---

Victorian Bushfires Royal Commission 2009

---

Victorian Climate Change Adaptation Plan 2017-2020

---

Victorian Climate Change Framework 2016

---

Victorian Floodplain Management Strategy 2016

---

Victorian Landcare Program Strategic Plan 2012

---

Victorian Planning Provisions 1998-1999

---

Victorian Protective Data Security Standards 2018

---

Victorian Waterway Management Strategy 2013

---

Water for Victoria – Water Plan (2016)

---



## Relevant Policies, Strategies and Agreements (continued)

### Regional

Barmah Strategic Action Plan

Climate Change Adaptation Plan for Natural Resource Management in the Goulburn Broken Catchment 2016

Dryland Landscape Strategy 2009-2011

Goulburn Broken Biodiversity Strategy 2016-2021

Goulburn Broken Biosecurity, Invasive Plants and Animal Strategy 2019-2025

Goulburn Broken Climate Change Integration Strategy 2012-2015

Goulburn Broken CMA Climate Change position paper 2007

Goulburn Broken CMA Organisational Environmental Footprint Policy 2011

Goulburn Broken CMA Organisational Environmental Footprint Strategy and Action Plan 2012-2014

Goulburn Broken CMA Diversity & Inclusion Plan 2017-2022

Goulburn Broken Communications and Marketing Strategy and Action Plan 2018-2020

Goulburn Broken Community Engagement Strategy and Action Plan 2018-2020

Goulburn Broken Community NRM Action Plan 2020-2025

Goulburn Broken Corporate Plan 2021-22 to 2025-26

Goulburn Broken Dryland Salinity Management Plan 1990 (and reviews 1995, 2001, 2008)

Goulburn Broken Land Health Statement 2014

Goulburn Broken Indigenous Participation Plan 2021

Goulburn Broken Land Health Strategy 2017-2020

Goulburn Broken Native Vegetation Plan 2003

Goulburn Broken Regional Catchment Strategy 2013-2019

Goulburn Broken Regional Catchment Strategy 2021-2027

Goulburn Broken Regional Floodplain Management Strategy 2018-2028

Goulburn Broken Strategic Directions Statement 2018

Goulburn Broken Water Quality Strategy 1996-2016

Goulburn Broken Water Quality Strategy Review 2017

Goulburn Broken Waterway Strategy 2014-2022

Goulburn Broken Workforce Strategy and Action Plan (including capability) 2013-2018

Goulburn Murray Resilience Strategy 2020

Hume Regional Growth Plan (2014)

Hume Strategy for Sustainable Communities (2010-2020)

Joint Management Plan for Barmah National Park 2020

Monitoring Evaluation and Reporting Strategy for the Goulburn Broken Catchment 2004

Municipal Planning Schemes

Northern Region Sustainable Water Strategy 2009

Ready for Change – Evaluation Strategy for the Goulburn Broken Catchment 2017-2022

Recognition and Settlement Agreement (Taungurung Land and Waters Council)

Shepparton Irrigation Region Land and Water Management Plan 1990-2020 (latest update 2016)

Taungurung Country Plan 2016

Various Memoranda of Understanding

Yorta Yorta Cooperative Management Agreement 2004

Yorta Yorta Nation Whole of Country Plan 2012-2017

Yorta Yorta Traditional Land Management Agreement 2010

## Appendix 6: Roles of Catchment Partners

Catchment partners	Description	Role
Community groups, networks and non-government organisations	Environmental and agricultural groups, networks and organisations such as Landcare, Conservation Management Networks, Friends of Groups, Riverine Plains Inc., Best Wool, Best Lamb groups, Better Beef groups, Irrigated Cropping Council, Victorian No-Till Farmers Association, Watertrust Australia, Murray Darling Wetland Working Group and philanthropic bodies.	The Catchment's 100 plus environmental and agricultural groups and non-government organisations mobilise community involvement, attract corporate, philanthropic and government funding, and influence and implementation of onground works.
Traditional Owners	Taungurung Land and Waters Council and Yorta Yorta Nation Aboriginal Corporation.	Traditional Owners are custodians of traditional ecological knowledge and cultural heritage across the catchment. They have a key role in Natural Resource Management and planning, including protection and enhancement of cultural values and integrating perspectives, knowledge and cultural management practices.
Private land managers	Farmers, lifestyle landholders and corporations.	With more than two thirds of the Catchment's landscapes owned privately, landholders invest significant resources (time, money and land) into natural resource management and sustainable farm practices.
Victorian Government, agencies and statutory authorities	Parks Victoria, Water Corporations, Victorian Environmental Water Holder, Environmental Protection Authority, Trust for Nature, Country Fire Authority and State Emergency Service.	The government funds and/or influences many natural resource management activities in the Catchment. They are guided by a range of policies and legislation and frequently delivered in partnership with other agencies and statutory authorities.  In addition, Goulburn Broken CMA is responsible for coordinating the collaborative implementation of the Goulburn Broken RCS, with different groups and organisations taking leadership roles for components of the strategy.
Australian Government and agencies	Murray-Darling Basin Authority, Commonwealth Environmental Water Office, Department of Agriculture, Water and the Environment, and the Department of Defence (Puckapunyal Military Area).	The government funds a significant number of natural resource management projects in the Catchment through the National Landcare Program. It also guides efforts around environmental protection and conservation of biodiversity, natural, built and cultural heritage, environmental research, water policy and resources and large-scale natural disaster recovery.
Local Government	Benalla Rural City Council, Campaspe Shire Council, Greater Shepparton City Council, Moira Shire Council, Mansfield Shire Council, Mitchell Shire Council, Murrindindi Shire Council and Strathbogie Shire Council.	In terms of Natural Resource Management (NRM), councils enforce state and local laws relating to land use planning, environmental protection, public health and animal management. They maintain significant infrastructure and play an important role in local NRM engagement, education and delivery (for example, local area plans).
Education and research	Government research institutes (for example, Arthur Rylah Institute), universities and schools.	Education and research bodies support delivery, monitoring and evaluation of natural resource management.
Industry groups	Fruit Growers Victoria, Murray Dairy, Victorian Farmers Federation, Grains Research and Development Corporation, Horticulture Innovation Australia and Meat and Livestock Australia.	Industry groups strongly influence natural resource management through their networks and advisory roles with land managers and government.
Recreational users	Fishing, birding, four-wheel driving and boating groups.	Recreational users are diverse interest groups which don't necessarily live in the catchment but regularly visit and use the catchment's natural resources. Some groups have significant political influence on government policies and legislation.

## Appendix 7: Community grants

Below is a list of grants paid to community groups and organisations for projects during the 2021-22 financial year. Payments made to Traditional owner groups are done on a works basis and may be across more than one funding source.

Total grants paid to community groups and other organisations 2021-22	Amount paid \$ (ex GST)
<b>Australian Government - Regional Land Partnerships Program</b>	
The Regional Land Partnerships component of the Australian Government's National Landcare Program Phase Two will deliver \$450 million dollars over five years Australia-wide to deliver national priorities at a regional and local level, supporting vital onground environment and agricultural projects across the country that offer benefits to our environment, our farms, and our communities.	
<b>Euroa Arboretum Inc.</b>	
Buxton Gum Revival	\$25,312
Healthy Hectares	\$10,000
Linking Landscapes and Communities	\$140,385
<b>Gecko CLaN Inc.</b>	
Linking Landscapes and Communities	\$53,500
<b>Goulburn Murray Landcare Network Inc.</b>	
Floodplain Ecology Course	\$10,000
Growing Regenerative Farming Systems	\$17,000
Linking Landscapes and Communities	\$32,350
<b>Greta Valley Landcare Group</b>	
Putting our heads together: Collaboration and knowledge sharing across the Catchments	\$6,500
<b>Hughes Creek Catchment Collaborative Inc.</b>	
Assessment and modelling of Soil Carbon profiles in the Hughes Creek catchment	\$20,550
<b>Irrigated Cropping Council Inc.</b>	
Increasing soil carbon to ameliorate compaction in irrigated soils	\$14,750
<b>Longwood Plains Conservation Management Network Inc.</b>	
Linking Landscapes and Communities	\$36,300
<b>Murrindindi Climate Network</b>	
Master tree growers course	\$21,430
<b>Regent Honeyeater Project Inc.</b>	
Linking Landscapes and Communities	\$160,000
<b>Riverine Plains Inc.</b>	
Evaluating plant-based opportunities to increase soil carbon in cropping systems	\$12,500
<b>South West Goulburn Landcare Inc.</b>	
Linking Landscapes and Communities	\$27,800
Validating grazing effects on soil nutrients on farms	\$21,464
<b>Strathbogie Ranges Conservation Management Network</b>	
Community engagement for Regional Agriculture Landcare Facilitator	\$8,500

Total grants paid to community groups and other organisations 2021-22	Amount paid \$ (ex GST)
<b>Superb Parrot Project</b>	
Linking Landscapes and Communities	\$8,040
<b>Taungurung Land and Waters Council</b>	
Linking Landscapes and Communities	\$62,892
Mending Mountains for the Pygmy Possum	\$44,500
<b>The Maize Association of Australia Inc.</b>	
Managing sub-surface irrigation impacts on soil acidity	\$13,750
<b>Trust for Nature</b>	
Linking Landscapes and Communities	\$16,363
<b>UP2US Landcare Alliance</b>	
Inspiring small farms to grow big ideas	\$20,312
<b>Upper Goulburn Landcare Network</b>	
Growing Regenerative Farming Systems	\$27,000
<b>Victorian No Till Farmers Association</b>	
Farmers Helping Farmers	\$9,000
<b>Winton Wetlands Committee of Management Inc.</b>	
Linking Landscapes and Communities	\$8,700
<b>Yea River Catchment Landcare Group</b>	
From the Ground Up	\$1,200
<b>Yorta Yorta Nation Aboriginal Corporation</b>	
Linking Landscapes and Communities	\$100,811

**Australian Government - Other**  
The Australian Government provides opportunities for investment in activities that help protect, enhance and strengthen the resilience of our quality built and natural environments, assets and resources.

<b>Yorta Yorta Nation Aboriginal Corporation</b>	
Swift Parrot Pantry	\$6,391

**Victorian Government - Biodiversity Response Planning**  
Biodiversity Response Planning (BRP) is a new area-based planning approach to biodiversity conservation in Victoria; designed to strengthen alignment, collaboration and participation between government agencies, Traditional Owners, non-government agencies (NGOs) and the community. BRP aims to progressively deliver a collective area-based response to the statewide targets in Biodiversity 2037.

<b>Euroa Arboretum Inc.</b>	
Ribbons of Blue and Sashes of Green	\$225
<b>Gecko CLaN Inc.</b>	
Ribbons of Blue and Sashes of Green	\$10,000

## Appendix 7: Community grants (continued)

Total grants paid to community groups and other organisations 2021-22	Amount paid \$ (ex GST)
<b>Goulburn Murray Landcare Network Inc.</b>	
Linking Lower Goulburn to Barmah private land works	\$6,000
<b>Longwood Plains Conservation Management Network Inc.</b>	
Ribbons of Blue and Sashes of Green	\$2,000
<b>Regent Honeyeater Project Inc.</b>	
Ribbons of Blue and Sashes of Green	\$75,991
<b>Superb Parrot Project</b>	
Linking Lower Goulburn to Barmah private land works	\$12,000
<b>Taungurung Land and Waters Council</b>	
Ribbons of Blue and Sashes of Green	\$33,736
<b>Trust for Nature</b>	
Linking Lower Goulburn to Barmah	\$25,000
<b>Yorta Yorta Nation Aboriginal Corporation</b>	
Linking Lower Goulburn to Barmah	\$10,253
Ribbons of Blue and Sashes of Green	\$16,737

### Victorian Government - Victorian Landcare Grants

The Victorian Government through Victorian Landcare Grants provides funding to the Goulburn Broken CMA to support Landcare and other community-based natural resource management groups to protect and restore the Victorian landscape.

<b>Cathedral Landcare Group</b>	
Andrews Creek Rehabilitation Project	\$4,500
Maintenance Grants	\$500
<b>Dabyminga Catchment Cooperative</b>	
Maintenance Grants	\$500
<b>Euroa Arboretum Inc.</b>	
Connecting kids to nature	\$16,000
Cultural connections on Taungurung country	\$10,000
Seed collection in the Goulburn Broken catchment - A citizen science project	\$13,600
<b>Flowerdale Landcare Inc.</b>	
Maintenance Grants	\$500
<b>Friends of the Marysville Walks Inc.</b>	
Maintenance Grants	\$500
<b>Girgarre Stanhope Landcare Group Inc.</b>	
Maintenance Grants	\$500
<b>Glenaroua Land Management Group</b>	
Maintenance Grants	\$500
<b>Goomalibee Landcare Group</b>	
Field days and workshops	\$10,000

Total grants paid to community groups and other organisations 2021-22	Amount paid \$ (ex GST)
<b>Goulburn Murray Landcare Network Inc.</b>	
Biodiversity Education Aquatic Discovery (BEAD)	\$16,000
Living the Good Farming Life	\$15,500
Maintenance Grants	\$500
<b>Home Creek Spring Creek Landcare Group</b>	
Maintenance Grants	\$500
<b>Hughes Creek Catchment Collaborative Inc.</b>	
Enhancing biosecurity on farming land in the Hughes creek catchment	\$18,000
Promoting Regeneration Ag in the HCCC	\$21,000
<b>Kinglake Ranges Neighbourhood House Inc.</b>	
Maintenance Grants	\$500
<b>Kinglake Scouts Junior Landcare Group</b>	
Maintenance Grants	\$500
<b>Koyuga Kanyapella Landcare Group</b>	
Maintenance Grants	\$500
<b>Longwood Plains Conservation Management Network Inc.</b>	
Increasing Angle Road Habitat	\$22,000
<b>Nulla Vale Pyalong West Landcare Group</b>	
Maintenance Grants	\$500
<b>Sheep Pen Creek Land Management Group Inc.</b>	
Increasing native vegetation cover, connectivity and persistence in Sheep Pen Creek	\$25,000
<b>South West Goulburn Landcare Inc.</b>	
FarmBlitz	\$15,000
<b>Strathbogie Ranges Conservation Management Network</b>	
Awe and wonder nature experiences	\$24,600
Historical Landcare works mapping	\$15,000
<b>Sunday Creek Dry Creek Landcare Group</b>	
Blackberries along Sunday Creek and Clonbinane Park	\$10,000
<b>UP2US Landcare Alliance</b>	
Small farms building knowledge and biodiversity	\$22,000
<b>Upper Goulburn Intrepid Landcare</b>	
Maintenance Grants	\$500
<b>Upper Goulburn Landcare Network</b>	
Environmental education for schools and community	\$16,000
Farm dams for wildlife	\$19,600
Pest plants and animals	\$15,000

Total grants paid to community groups and other organisations 2021-22	Amount paid \$ (ex GST)
<b>UT Creek Maintongoon Landcare Group</b>	
Maintenance Grants	\$500
<b>Warby Ranges Landcare Group</b>	
Building cultural awareness in our local community	\$6,000
<b>Willowmavin Landcare Group</b>	
Maintenance Grants	\$500
<b>Wyuna Landcare Group Inc.</b>	
Maintenance Grants	\$500
<b>Yea River Catchment Landcare Group</b>	
Maintenance Grants	\$1,500

<b>Victorian Government - Victorian Water Programs Investment Framework</b>	
The VWPIF supports an integrated approach to water investment in Victorian catchment regions to improve the health of Victoria's catchments and waterways through effective and efficient integrated catchment management.	
<b>Australian Platypus Conservancy</b>	
Community monitoring of Platypus in Lower Goulburn River	\$2,600
<b>Committee for Greater Shepparton</b>	
MDB Northern Vic Water Resource Plan 2020	\$2,000
<b>Euroa Arboretum Inc.</b>	
Plant propagation	\$4,290
Taking Care of Country	\$3,586
<b>Gecko CLaN Inc.</b>	
Taking Care of Country	\$7,025
<b>Goulburn Murray Landcare Network Inc.</b>	
Tahbilk education day	\$455
<b>Greater Shepparton City Council</b>	
RiverConnect Project	\$53,150
<b>Taungurung Land and Waters Council</b>	
Connecting People and Place	\$2,244
Environmental Water Management	\$9,663
Onground works	\$4,539
<b>UP2US Landcare Alliance</b>	
Taking Care of Country	\$1,455
<b>Upper Goulburn Landcare Network</b>	
Taking Care of Country	\$7,400
<b>Yorta Yorta Nation Aboriginal Corporation</b>	
Barmah Ramsar Site Management	\$26,195
Onground works	\$18,861

Total grants paid to community groups and other organisations 2021-22	Amount paid \$ (ex GST)
<b>Victorian Government - Other</b>	
The Victorian Government provides opportunities for investment in activities that help protect, enhance and strengthen the resilience of our quality built and natural environments, assets and resources.	
<b>Delatite Landcare Group</b>	
Soils ain't soils II	\$4,250
<b>Euroa Arboretum Inc.</b>	
Growing the future in the Goulburn Broken	\$30,000
<b>Goulburn Murray Landcare Network Inc.</b>	
Milking regeneratively in the Goulburn Broken Catchment	\$3,000
<b>Molyullah Tatong Land Protection Group</b>	
Engaging farmers to begin the carbon journey	\$12,600
<b>Strathbogie Tableland Landcare Group</b>	
Trial to measure the benefits of soil moisture and pasture growth from deep cultivation at Strathbogie	\$7,530
<b>Taungurung Land and Waters Council</b>	
Horseshoe Lagoon Environmental Water Pumping	\$22,800
Jamieson River Recreation Hub	\$3,000
Southern Pygmy Perch conservation stocking	\$14,680
Tri-State Fish Recovery Project	\$4,000
<b>Warby Ranges Landcare Group</b>	
Towards the Future Land Management	\$8,600
<b>Yorta Yorta Nation Aboriginal Corporation</b>	
The Living Murray 2021-22	\$5,000
<b>Grand Total</b>	<b>\$1,712,465</b>

## Appendix 8: RCS sub strategies progress

Plan or strategy - overview of purpose	Timeframe	Status and further details
<b>Community and Environment sub-strategies</b>		
<p><b>Biodiversity Strategy for the Goulburn Broken Catchment</b></p> <p>The Biodiversity Strategy for the Goulburn Broken Catchment 2016-2021 builds on three previous versions prepared over the past 20 years. This 2016 version factors in reviews of previous strategies, current regional drivers of change, and regional, Victorian and Australian government policies and strategies.</p> <p>The strategy identifies initiatives under five-year strategic directions for achieving a 15-year vision.</p>	2016-2021	<p>Strategy not to be renewed as details captured in RCS. A program plan to be developed.</p> <p>See Biodiversity page 58.</p>
<p><b>Land Health Strategy</b></p> <p>The Land Health Strategy 2017-2020 defines land health and outlines strategic priorities and associated actions to guide land health activities that contribute to selected strategic priorities of the RCS.</p>	2017-2020	<p>Strategy not to be renewed as details captured in RCS. A program plan to be developed.</p> <p>See Land page 67.</p>
<p><b>Goulburn Broken Biosecurity, Invasive Plants and Animals Strategy</b></p> <p>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.</p>	2019-2025	<p>Implementation phase .</p> <p>See Land page 67.</p>
<p><b>Goulburn Broken Waterway Strategy</b></p> <p>This Strategy presents an integrated catchment planning framework for waterways (including wetlands) in the Goulburn Broken region and is the primary guide for priority setting, maintenance and improvements in our waterways.</p>	2014-2022	<p>Final review completed. Renewal of strategy to be completed in 2024.</p> <p>See Waterways page 38.</p>
<p><b>Goulburn Broken Regional Floodplain Management Strategy</b></p> <p>The new Strategy built on the previous strategies and provides a single, regional planning document for floodplain management and a high-level regional work plan to guide future investment priorities. The Regional Floodplain Strategy aligns with the vision and priorities of the Regional Catchment Strategy and the Regional Waterway Strategy.</p>	2018-2028	<p>Implementation phase.</p> <p>See Floodplain page 52.</p>
<b>Integrated Local Plans</b>		
<p><b>SES Local Area Plans (Agricultural Floodplains, Commuting Hills, Upland Slopes, Southern Forests and Productive Plains)</b></p> <p>Local Area Plans have been developed to communicate the priorities – and actions - for supporting the local community as it responds to changes in land use, water policy reform, and climate and farm productivity.</p> <p>Local Plans have been developed for each SES as we recognise the people living and working in each SES are best placed to priorities the activities needed to build the resilience of the region's critical ecosystem services (such as productive soils, clean air, high quality water). These local actions contribute to the success of Catchment-wide efforts to respond to issues such as fire, flood, drought and changes in land use.</p> <p>These plans are available on WeConnect (<a href="http://weconnect.gbcma.vic.gov.au">http://weconnect.gbcma.vic.gov.au</a>).</p>	2021–2027 (in-line with the RCS)	Implementation phase.
<b>Organisation's business sub-strategies</b>		
<p><b>Corporate plan</b></p> <p>Communicate a clear picture of success to investors (the government) and hence the value to the Victorian community requires:</p> <ul style="list-style-type: none"> <li>• an unbroken line of sight between the regional vision for the plan period and output delivery;</li> <li>• clearly articulating the plan with a compelling and simple narrative; and</li> <li>• transparent performance measures.</li> </ul> <p>In accordance with section 19D of the <i>CaLP Act</i>, a CMA's corporate plan should cover a five-year period, which is intended to ensure an integrated and strategic approach over an extended period. However, the financial statements are required to cover a three-year period.</p>	Annually	<p>Annual renewal.</p> <p>Corporate Plan 2021-2026 has been developed and designed in such a way that it is more accessible to a broader audience.</p> <p>See progress report page 25.</p>

<b>Plan or strategy - overview of purpose</b>	<b>Timeframe</b>	<b>Status and further details</b>
<p><b>Community NRM Action Plan</b>                      Aligned to the Community articulated Visions and Goals, the Plan outlines the actions that the Goulburn Broken CMA will undertake and support to deliver on two of the strategic priorities of the Goulburn Broken RCS, that is 'strengthen Partnerships' and 'embedding resilience'. Embedding resilience is a significant step in helping individuals, communities and organisations achieve their goals in the face of ongoing change.</p>	2020-2025	Implementation phase. See Community page 33.
<p><b>Communication and Marketing Strategy</b>                      Communication and Marketing Strategy aims to have coordinated, innovative marketing and communication effectively informing stakeholders on how the Goulburn Broken CMA will achieve and deliver its vision.</p>	2018-20	To be renewed in line with the Community Engagement Strategy and Action Plan. See Community page 33.
<p><b>Community Engagement Strategy and Action Plan</b>                      The Community Engagement Strategy and Action Plan are designed to be flexible, dynamic and responsive documents that reflect the constantly evolving environment the Goulburn Broken CMA and its stakeholders operate in.</p>	2018-20	To be renewed by December 2022. See Community page 33.
<p><b>Goulburn Broken CMA Climate Change Integration Strategy</b>                      The Climate Change Integration Strategy consolidates a framework for implementing the Goulburn Broken CMA climate change policy statement: 'In dealing with climate change and likely impacts, the Goulburn Broken CMA will focus on adaptation strategies to increase catchment resilience; greenhouse gas sequestration activity such as carbon brokering will be engaged for the purpose of assisting adaptation responses; and mitigation initiatives led by local government will be actively supported.'</p>	2012-2015	Not being renewed, a policy and action plan will replace the strategy. To be developed in 2022. See Climate change page 32.
<p><b>Goulburn Broken Information and Communication Technology Strategy</b>                      Internal strategy to guide development and delivery of information and communication technology services. Development of the Information and Communication Technology Strategy was postponed due to unexpected staff resource losses and budget uncertainty. Focus of available resources was to maintain existing capability and continue to meet defined service levels agreements.</p>	2021 - 2023	See Governance page 96.
<p><b>Workforce Strategy and Action Plan (including capability)</b>                      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.</p>	2013-2018	To be renewed 30 June 2023. See Human resources page 88.
<p><b>Goulburn Broken CMA Diversity &amp; Inclusion Plan (not legislated but directed by the Minister for Water)</b>                      The Goulburn Broken CMA provides a workplace and work practices that embrace, reflect, respect and promote the inclusion and participation for all regardless of difference.</p>	2017-2022	Implementation phase. See Human resources page 88.
<p><b>Goulburn Broken Indigenous Participation Plan</b>                      This participation plan defines the cooperative relationship between Traditional Owners, represented by Yorta Yorta Nation Aboriginal Corporation (YYNAC) and Taungurung Land and Waters Council (TLWC), and the Goulburn Broken Catchment Management Authority (Goulburn Broken CMA), with respect to participation activities, programs and partnerships within the Goulburn Broken catchment.</p>	2021	Updated annually. See Community page 33.
<p><b>Reconciliation Action Plan</b>                      The RAP acknowledges our intent and desire as an organisation to express our continuing commitment to reconciliation including as leaders for increased cultural respect, engagement, equity and opportunity for employment and business on Country for Traditional Owners, and other Aboriginal and Torres Strait Islander people.</p>	2021- 2023	Implementation phase. See Community page 33.

## Appendix 9: Disclosure index

The Annual Report of the Goulburn Broken CMA is prepared in accordance with all relevant Victorian legislations and pronouncements. This index has been prepared to facilitate identification of the Authority's compliance with statutory disclosure requirements.

Information relevant to the headings listed in Financial Reporting Direction 22 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	Requirement	page
<b>Ministerial Directions &amp; Financial Reporting Directions</b>		
<b>Report of operations</b>		
	<b><i>Charter and purpose</i></b>	
FRD 22	Manner of establishment and the relevant ministers	4
FRD 22	Purpose, functions, powers and duties	4, 97
FRD 22	Key initiatives and projects	26-30
FRD 22	Nature and range of services provided	4, 97
	<b><i>Management and Structure</i></b>	
FRD 22	Organisational structure	5
	<b><i>Financial and other information</i></b>	
FRD 10	Disclosure Index	166
FRD 12	Disclosure of major contracts	114
FRD 15	Executive officer disclosures	90, 91
FRD 22	Employment and conduct principles	88-89
FRD 22	Workforce inclusion policy	89
FRD 22	Occupational health and safety policy	88, 92
FRD 22	Summary of the financial results for the year	110
FRD 22	5 year financial summary	110
FRD 22	Summary of operational and budgetary objectives including performance	101-103, 111
FRD 22	Significant changes in financial position during the year	112
FRD 22	Major changes or factors affecting performance	112
FRD 22	Subsequent events	114
FRD 22	Application and operation of <i>Freedom of Information Act 1982</i>	105
FRD 22	Compliance with building and maintenance provisions of <i>Building Act 1993</i>	106
FRD 22	Statement on National Competition Policy	108
FRD 22	Application and operation of the <i>Public Interest Disclosures Act 2012</i>	109
FRD 22	Details of consultancies over \$10,000	112
FRD 22	Details of consultancies under \$10,000	112
FRD 22	Disclosure of government advertising expenditure	114
FRD 22	Disclosure of ICT expenditure	112
FRD 22	Statement of availability of other information	109
FRD 24	Reporting of office-based environmental impacts	94
FRD 25	Local Jobs First	107
FRD 29	Workforce data disclosures	90-91
SPF	Social Procurement Framework	113



<b>Legislation</b>	<b>Requirement</b>	<b>page</b>
<b>Ministerial Directions &amp; Financial Reporting Directions</b>		
<b>Compliance attestation and declaration</b>		
SD 5.1.4	Attestation for Financial Management Compliance	97
SD 5.2.3	Responsible Body Declaration in report of operations	2
<b>Financial statements</b>		
<b>Declaration</b>		
SD 5.2.2	Declaration in financial statements	115
<b>Other requirements under Standing Directions 5.2</b>		
SD 5.2.1 (a)	Compliance with Australian accounting standards and other authoritative pronouncements	115, 121-122
SD 5.2.1 (a)	Compliance with Standing Directions	115
SD 5.2.1(b)	Compliance with Model Financial Report	115
<b>Other disclosures as required by FRDs in notes to the financial statements</b>		
FRD 11	Disclosure of Ex-gratia Payments	144
FRD 21	Disclosures of Responsible Persons, Executive Officers and other Personnel (Contractors with Significant Management Responsibilities) in the Financial Report	144
FRD 103	Non-Financial Physical Assets	128-132
FRD 110	Cash Flow Statements	120
FRD 112	Defined Benefit Superannuation Obligations	127
FRD 120	Accounting and reporting pronouncements applicable to the 2022-23 reporting period	147
<b>Legislation</b>		
	<i>Freedom of Information Act 1982</i>	105
	<i>Building Act 1993</i>	106
	<i>Public Interest Disclosures Act 2012</i>	109
	<i>Local Jobs Act 2003</i>	107
	<i>DataVic Access Policy 2012</i>	107
	<i>Financial Management Act 1994</i>	104
	<i>Catchment and Land Protection Act 1994</i>	104
	<i>Water Act 1989</i>	104

## 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.

**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.

**Community NRM:** Community Natural Resource Management is an umbrella term that encompasses the community based environmental groups of the region such as Landcare, Friends of, Conservation Management Network and sustainable farming groups.

**Critical attributes:** see Appendix 1, page 151.

**Dammed (regulated) streams:** A river system where major dams or weir structures have been built to regulate the supply or extraction of water. Prior to the establishment of sustainable diversion limits and material volumes of water were set aside for the environment, flow in regulated streams relied solely on water from rainfall and flow remaining after water was extracted for consumptive uses (urban, irrigation and industry).

**Ecosystem:** A diverse and changing set of living organisms within a community, interacting with each other and the physical elements of the environment in which they are found.

**End-of-valley targets** have been proposed for major rivers contributing salt to the Murray River 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.

**FLAWS:** A method for determining environmental water requirements in Victoria.

**GMW Connections** was a \$2 billion project funded by the Victorian Government, Australian Government and Melbourne Water to develop a water delivery network to match changing needs and support opportunities for irrigated agriculture across Northern Victoria.

**Investment area:** see Appendix 1, page 151.

**Long-term objectives:** Long-term (20-30 year) goals for the system components of the Catchment - people, land, water and biodiversity. These objectives are found in the sub-strategies of Goulburn Broken CMA. Achieving these objectives will contribute to the Vision being realised. In some instances, these objectives may be related to known (or assumed) thresholds and tipping points.

**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** is the ability of the Catchment's people and environment 'to absorb a shock or setback and to flourish in spite of it, maybe even because of it'. It does not mean 'ploughing through' and doing what we have always done. See pages 20 and 151.

**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.

**Risk:** see Appendix 1, page 151.

**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. Goulburn Broken CMA has set up the framework for the B Register and is establishing a process with DELWP 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 (SES):** Linked and generally similar systems of people and nature, taking into account cultural, political, social, economic, ecological and technological components.

**System state:** see Appendix 1, page 151.

**Thresholds:** A breakpoint between two states of a system that must be exceeded to begin to produce some sort of effect or response.

**Tipping points:** A point where a small change can have a large effect on the state of a system.

**Undammed (unregulated) streams:** A river system where no major dams or weir structures have been built to regulate the supply or extraction of water. Prior to the establishment of sustainable diversion limits and improved management of licensed water use extraction, through local management plans, many unregulated streams were flow-stressed.

## Abbreviations

AASB	Australian Accounting Standards Board	LGA	Local Government Authority
AgVic	Agriculture Victoria	LWMP	Land and Water Management Plan
ARI	Arthur Rylah Institute	MCC	Municipal Catchment Coordinator
BBCMN	Broken Boosey Conservation Management Network	MDB	Murray-Darling Basin
BRP	Biodiversity Response Planning is a area-based planning approach to biodiversity conservation in Victoria.	MDBA	Murray-Darling Basin Authority
BOA	Biodiversity On-Ground action – onground initiatives and funding through the Victorian Government	MFEP	Municipal Flood Emergency Plan
BoM	Bureau of Meteorology	ML	Megalitre
BRP	Biodiversity Response Planning	MLA	Member of the Legislative Assembly
BSMS	Basin Salinity Management Strategy (MDBA)	MLC	Member of the Legislative Council
CaLP	<i>Catchment and Land Protection Act 1994</i>	MP	Member of Parliament
CEO	Chief Executive Officer	MoU	Memorandum of Understanding
CEWH	Commonwealth Environmental Water Holder	NCCMA	North Central CMA
CFA	Country Fire Authority (Victoria)	NECMA	North East CMA
CMA	Catchment Management Authority	NLP	Australian Government's National Landcare Program
CMN	Conservation Management Network	no.	Number
CSIRO	Commonwealth Scientific and Industrial Research Organisation	NRM	Natural Resource Management
DELWP	Department of Environment, Land, Water and Planning	OCOC	Our Catchments Our Communities - Integrated Catchment Management in Victoria 2016-19
DJPR	Department of Jobs, Precincts and Regions	OHS	Occupational Health and Safety
DoT	Department of Transport	PEER	<i>Public Entity Executive Remuneration Policy</i>
DTF	Department of Treasury and Finance	PV	Parks Victoria
DWG	Designated Work Group	RAP	Registered Aboriginal Party recognised under the <i>Victorian Aboriginal Heritage Act 2006</i>
EBA	Enterprise Agreement	RAP	Reconciliation Action Plan
EC	Electrical Conductivity unit	RaPP	Rangeland and Pasture Productivity Map (Goulburn Broken) Regional Catchment Strategy
EPBC	<i>Environment Protection and Biodiversity Conservation Act 1999</i>	RCS	
EVC	Ecological Vegetation Class	RLP	Australian Government's Regional Land Partnerships
EWAG	Environmental Water Advisory Group	ROBSOG	Ribbons of Blue and Sashes of Green (Biodiversity project)
FOI	Freedom of Information	RSMP	Regional Salinity Management Plan
FTE	Full-time Equivalent	RTW	Return to Work
FWP	Farm Water Program	SES	Social-Ecological System
GB CMA	Goulburn Broken Catchment Management Authority	SIR	Shepparton Irrigation Region
GHG	Greenhouse Gas	SIRCIS	Shepparton Irrigation Region Catchment Implementation Strategy
GL	Gigalitre	SIRLWMP	Shepparton Irrigation Region Land and Water Management Plan
GMID	Goulburn-Murray Irrigation District	SIRPPIC	Shepparton Irrigation Region People and Planning Integration Committee
GMLN	Goulburn Murray Landcare Network	SoO	Statement of Obligations
GMW	Goulburn-Murray Water	t CO <sub>2</sub> e	Tonnes of carbon dioxide (CO <sub>2</sub> ) emitted
GST	Goods and Services Tax	TCV	Treasury Corporation of Victoria
ha	Hectare	TfN	Trust for Nature
HSR	Health and Safety Representative	TFWS	Total Flood Warning System
IRP	Issue Resolution Procedures	TLaWC	Taungurung Land and Waters Council
IT / ICT	Information Technology / Information and Communications Technology	VCAT	Victorian Civil Administrative Tribunal
IVT	Inter-Valley Trade transfers	VEPP	Victorian Environmental Partnerships Program
km	Kilometre	VEWH	Victorian Environmental Water Holder
KPI	Key Performance Indicator	VFMP	Victorian Farm Modernisation Program
L	Litre	VIPP	Victorian Industry Participation Policy
LaBIF	Land and Biodiversity Implementation Forum	WGCMN	Whroo Goldfields Conservation Management Network
LiDAR	Light Detection and Ranging remote sensing technology	YYNAC	Yorta Yorta Nation Aboriginal Corporation
LIDP	Local Industry Development Plans		

## Index

A	Page
Abbreviations	169
Annual Scorecards	22
Audit, Risk and Compliance Committee	100
<b>B</b>	
Balance Sheet	119
Biodiversity	58
Board Directors	98
Board attendance	100
Business structure	5
<b>C</b>	
<i>Catchment and Land Protection Act, 1994</i>	97, 104
Catchment area	7
Catchment Condition assessment	12
Cash Flow Statement	120
Chair's report	2
Chief Executive Officer's report	3
Climate Change	32
Community	33
Compliance	104
Consultants	112
Contact Information	Back cover
<b>D, E</b>	
Disclosure Index	166
Environmental flows (see Waterways)	38
Environmental footprint	94
<b>F</b>	
Financial report	110
Financial results summary	110
Financial statements	115
Floodplain management	52
<i>Freedom of Information Act, 1982</i>	105
<b>G</b>	
Glossary of Terms	168
Goulburn Broken profile	4
Governance	96

H, I	Page
Human resources	88
Independent Auditor's report	116
Invasive Plants and Animals (see Land)	67
<b>J, K, L</b>	
Key events	10
Land	67
Long-term scorecard	14
<b>M, N, O</b>	
Management Team and Program Managers	5
Notes to the financial statements	121
Occupational health and safety	92
<i>Occupational health and safety Act, 2004</i>	108
<b>P</b>	
Performance indicators	101
<i>Planning and Environment Act, 1987</i>	107
Powers and duties	4, 97
<i>Privacy and Data Protection Act, 2014</i>	106
<i>Protected Disclosures Act, 2012</i>	105
<i>Public Administration Act, 2004</i>	106
<b>Q, R</b>	
Regional Catchment Strategy	24
Research and development	31
<b>S, T, U, V</b>	
Significant accounting policies	121
Social Procurement Framework	113
Staff list	170
Sustainable irrigation	75
<b>W, X, Y, Z</b>	
<i>Water Act, 1989</i>	104
Water quality	38
Waterways	38
Wetland health	38
Workforce data	91

## Staff list 2021-22

Aaron Findlay	Corey Wilson	Smith	Keith Ward	Prajit Kotia	Sue Kosch
Andrea Muskee	Daniel Lovell	Jason Mullins	Kerstie Lee	Qader Karimi	Tim Barlow
Annette Neessen	Darelle Backway	Jenny Wilson	Kiara Catania	Rachael Spokes	Tom O'Dwyer
Ashley Rogers	Dylan McWhinney	Jim Begley	Kirsten Roszak	Rebecca Caldwell	Tony Kubeil
Caitlin Baker	Eamon Reeves	Jo Geddes	Mark Turner	Rhiannon Sandford	Vicki Mackenzie
Carl Walters	Eileen Curtis	Joel Leister	Martine Hooper	Russel Haque	Vicki Morris
Caroline Keenan	Fiona Lloyd	Karan Balfour	Mary Dimit	Samantha Moreno	Zara Marais
Chris Cumming	Gaye Sutherland	Karen Brisbane-	Meegan Judd	Shannon Crawford	Zuzanna Lelito
Chris Nicholson	Guy Tierney	Bullock	Megan McFarlane	Simon Casanelia	
Christine Glassford	James Burkitt	Kate Brunt	Neville Atkinson	Simon Cowan	
Collin Tate	Janice Mentiplay-	Kate Montgomery	Pam Beattie	Steve Wilson	

# RECOGNISING MAJOR NRM CONTRIBUTIONS

## Bill O’Kane



The Goulburn Broken Catchment Management Authority (GB CMA) and local region lost a champion of natural resource management when Bill O’Kane passed away on 7 March this year.

Bill was revered in the catchment community and as the inaugural chief executive officer of the Goulburn Broken CMA, he formed and led the organisation’s culture, connections, passion and place in natural resource management leadership and delivery.

Bill had been head of the regional Salinity Program Advisory Council and CEO of the Goulburn Broken Catchment and Land Protection Board. He took the helm of Goulburn Broken CMA at its inception on 1 July 1997 and for the next decade played a pivotal role in the authority’s foundational years, while leaving a legacy for the environment that is still felt today.

Of particular note was Bill’s involvement in the Shepparton Irrigation Region Land and Water Management Plan which was created to manage the rising water table and salinity after recognition there needed to be a greater focus on irrigation water efficiency and a smarter approach to land management.

Last year marked the 30th anniversary of the plan which continues to direct strategic investments across the irrigated landscape of the Goulburn Broken catchment.

Current CEO of Corangamite CMA, John Riddiford, came to know Bill when John was appointed inaugural CEO of North East CMA in 1997.

‘Bill was larger than life and he was influential,’ John said.

‘The irrigation impact on salinity was greatly mitigated in the Goulburn Broken region because of Bill’s work.

‘He was a solutions-driven person who was able to achieve good outcomes, even in politically challenging times.’

John said Bill was successful at marrying scientific investigations to community-driven outcomes.

‘He was very protective and defensive of the Goulburn Broken region. He was very good at securing money and projects for the region and was always ready to go when funding became available.

‘His work in salinity was ground-breaking for its time. This, along with his contribution to irrigation efficiencies and biodiversity program implementation reporting are fantastic legacies of his work.’

Inaugural CEO of Goulburn-Murray Water, Denis Flett, said he held Bill O’Kane in the highest regard.

‘Bill was a wizard at having the community speak for itself and then taking that to state and federal government,’ Denis said.

‘He understood the power of community and working with whoever was in government at the time to get results.

‘His skill was in effective and empowering engagement with the community, combined with collaboration of leadership and technical capacity of government agencies.’

Denis said Bill was adept at fostering co-operation between all parties involved.

‘He promoted sharing a co-operative culture, presenting as one in the community. We were very aligned; we were on the same page for the region. We worked together and we celebrated our successes together.’

Denis highlighted the Muckatah Catchment Strategy, which won a Victorian Engineering Excellence award and a national, environmental Banksia award as a reflection of Bill’s impact, as well as the move to focus on ecosystem management across the region.

Current Goulburn Broken CMA Deputy CEO Carl Walters, who worked for Bill, paid tribute:

‘We remember Bill for his passionate support of the region and its people and the positive leadership he brought to the workplace,’ Carl said.

‘His approach was to encourage good people to do great things and many of us benefitted from that, as did our catchment.

‘Those who worked with Bill appreciated his enduring support, leadership and friendship over many years.’

Carl said the Goulburn Broken CMA continued to benefit from the legacy created under Bill’s leadership.

‘As the organisation’s first CEO he was known for his preparedness to push the boundaries, the supportive workplace culture he developed and a general attitude of ‘can-do’.

Chris Cumming, current Goulburn Broken CMA CEO, praised the approach Bill established in catchment management.

‘In those initial years of the GB CMA Bill O’Kane set the bench-mark for co-operation, achievement and results for our natural environment in partnership with community,’ Chris said.

‘The strong community focus and can-do culture still provides that foundation of our approach in this, the 25th year of the CMA.’



**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.

**GOULBURN BROKEN CATCHMENT MANAGEMENT AUTHORITY CONTACTS AND OFFICES**

Phone: (03) 5822 7700 | Email: [reception@gbcma.vic.gov.au](mailto:reception@gbcma.vic.gov.au) | [www.gbcma.vic.gov.au](http://www.gbcma.vic.gov.au)

**Benalla**

89 Sydney Road, Benalla  
PO Box 124, Benalla VIC 3672

**Shepparton (Main Office)**

168 Welsford Street, Shepparton  
PO Box 1752, Shepparton VIC 3632

**Yea**

Shop 5/10 High Street  
Yea VIC 3717