

**Australian Government** 



### MURRAY-DARLING BASIN AUTHORITY

**ANNUAL REPORT** 



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### Acknowledgement of First Nations Australians

The Murray–Darling Basin Authority (MDBA) acknowledges and offers its respect to the Traditional Owners and their Nations of the Murray–Darling Basin. The contributions of earlier generations, including the Elders, who have fought for their rights in natural resource management are also acknowledged, valued and respected.

The MDBA recognises and acknowledges that the Traditional Owners and their Nations in the Murray–Darling Basin have a deep cultural, social, environmental, spiritual and economic connection to their lands and waters. The Authority understands the need for recognition of Traditional Owner knowledge and cultural values in natural resource management associated with the Basin. Further research is required to assist in understanding and providing for cultural flows.

The approach of Traditional Owners to caring for the natural landscape, including water, can be expressed in the words of Ngarrindjeri elder Tom Trevorrow: 'our traditional management plan was don't be greedy, don't take any more than you need and respect everything around you. That's the management plan – it's such a simple management plan, but so hard for people to carry out.'

Barapa Barapa	Jarowair	Ngadjuri	Wadi Wadi
Barkindji (Paakantyi)	Kambuwal	Ngambri	Wailwan
Barunggam	Kaurna	Ngarabal	Wakka Wakka
Bidjara	Kunja	Ngarigu	Watjobaluk
Bigambul	Kwiambul	Ngarrindjeri	Waywurru
Budjiti	Latji Latji	Ngemba	Weki Weki
Dhudhuroa	Maljangapa	Ngintait	Wemba Wemba
Dja Dja Wurrung	Mandandanji	Ngiyampaa	Wergaia
Euahlayi	Maraura	Ngunnawal/Ngunawal	Wiradjuri
Giabel	Mardigan	Nyeri Nyeri	Wolgalu
Githabul	Murrawarri	Peramangk	Wotjobaluk
Gomeroi/Kamilaroi	Mutthi Mutthi	Tati Tati	Yaitmathang
Gunggari/Kungarri	Nari Nari	Taungurung	Yita Yita
Gwamu (Kooma)			Yorta Yorta

#### Aboriginal Nations of the Murray-Darling Basin

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### Introduction

### About this annual report

The Murray–Darling Basin Authority Annual Report 2021–22 gives an overview of performance from 1 July 2021 to 30 June 2022. It reviews performance against the purpose and goals published in the Portfolio Budget Statements and the *Murray–Darling Basin Authority Corporate Plan 2021–22*.

Part 1	Overview	Includes a foreword by the Authority Chair, the Chief Executive's review and an overview of the Murray-Darling Basin and the Murray-Darling Basin Authority
Part 2	Performance	Presents the Murray-Darling Basin Authority's performance during 2021-22 and priorities for the next reporting period
Part 3	Management and accountability	Has governance and accountability details including the organisational structure and how the business is run
Part 4	Financial statements	Contains the financial statements and the independent auditor's report
Appendices		Contain the glossary, abbreviations, table of annual report requirements, details of the accountable authority, and index

### Letter to the Minister

Australian Governm	BASIN AUTHORITY
Office of	the Chief Executive
Ref: EC22/000600	
The Hon. Tanya Plibersek MP Minister for the Environment and Wate PO Box 6022 Parliament House CANBERRA ACT 2600	er
Dear Minister	
It is my pleasure to present the Murray the 2021 – 22 financial year.	-Darling Basin Authority (MDBA) annual report for
During the year the MDBA has continue	ed to:
<ul> <li>drive the implementation of the communities, governments and</li> <li>direct the sharing of water of the sharing shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state of the shares are shares as a second state are shares are shares are shares are shares are shares are shares are</li></ul>	e Murray–Darling Basin Plan in collaboration with I industries of the Basin ne River Murray on behalf of Basin governments.
The report has been prepared in accord Accountability Act 2013 (Cwlth) (s. 46) a	dance with the <i>Public Governance, Performance and</i> and the <i>Water Act 2007</i> (Cwlth) (s. 214).
I certify that the MDBA has prepared fr practices, fraud prevention, detection, compliance with the Commonwealth Fi taken all reasonable measures to minin	aud risk assessments, fraud control plans and investigation, and reporting, and data collection in raud Control Framework. I also certify that I have nise the incidence of fraud in the MDBA.
I would like to acknowledge the commi achieving a healthy, productive Murray	itment of MDBA staff and their contribution to —Darling Basin.
Yours sincerely	
A	
Andrew McConville	
10 October 2022	
<b>Office locations</b> Adelaide, Albury-Wodonga, Canberra,	(1800 230 067) (1) mdba gay au
	🐨 mana.gov.au



# **Part 1** Overview

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# 01

### Foreword by the Authority Chair

The remit of the Murray–Darling Basin Authority is to achieve a healthy, working Basin for the benefit of all Australians. I have had the privilege this year of seeing firsthand how this is being done in ground-breaking ways, backed by science, evidence and a steady determination to see improvements in how we manage and safeguard our water resources in the national interest.



The boundaries of the Basin reach from around Tambo in the north, west to White Cliffs, east to Armidale and south to Seymour. More than 2.3 million people call the Basin home, including people

from more than 40 different First Nations. It supplies water to more than 3 million people – including to the city of Adelaide – and supports a wide range of enterprises, including 40% of our agricultural production. Securing its future is incredibly important, and even more so as we are confronted with the realities of our new and increasingly extreme climate.

In the past 12 months I have continued my listening tours and met many people from all over the Basin who represent a variety of interests, perspectives and passions. It's clear to me that everyone agrees that we need a healthy river system – its health underpins the health of everything else. Water management is a partnership between governments, industries and communities. It is incumbent on us all to seek ways to improve how we use and manage this precious, finite resource in sustainable and equitable ways. In December we farewelled Chief Executive Phillip Glyde after 6 years of distinguished service to the MDBA and many decades as an inspiring leader in the Australian Public Service. I thank Phillip for his strong and proactive stewardship of the MDBA and the momentum he achieved in water reform, regionalisation and improved connections with stakeholders, among his many other achievements. On behalf of the Authority, I wish Phillip well in his retirement.

I have appreciated acting Chief Executive Andrew Reynolds's expert leadership over 11 months of the financial year, and I am pleased he returns to his substantive position heading up our River Management team. New Chief Executive Andrew McConville started in late June, and I look forward to working closely with him.

In April we thanked outgoing Authority member Ms Joanna Hewitt AO for her immense contributions during her 4-year term, including a considerable period as acting Authority Chair. We have welcomed 2 new members, Dr Jane Doolan and Roseanne Healy, and we are already benefitting from their insights and direction. It is a watershed time at the MDBA as we oversee the implementation of the current Basin Plan and work towards the Basin Plan Evaluation in 2025 and the Basin Plan Review in 2026. The unfinished elements of the Basin Plan are fundamental to achieving the objectives governments signed up to in 2012. These final pieces of the Plan include the accreditation of water resource plans in New South Wales, the 450 GL of efficiency measures and system-wide projects that contribute to the sustainable diversion limit adjustment mechanism. If we are going to give our rivers the best chance, these final elements of the Plan must be completed.

Concurrent with the immediate challenges with implementation that must be addressed, we are also turning our focus to the future of the Basin. Working together, we must support adaptative water management in the face of climate change and integrate cultural flows and knowledge of First Nations into water management. I outlined how we plan to do this at our annual conference, River Reflections, in Mildura in June this year. Our common interest continues to be an unflinching desire to ensure the wellbeing and resilience of the Basin's river systems, its people and places. This vision is what drives me and the work of the MDBA.

I commend to you this annual report.

Hombr

Air Chief Marshal Sir Angus Houston AK, AFC (Ret'd) Authority Chair

### Chief Executive's review

I am pleased to present the Murray–Darling Basin Authority (MDBA) annual report for 2021–22. The year's hallmarks are ones of progress, adaptability and planning. In a year where we have again experienced more rain in many catchments than in previous years, a shift in responsibilities, and the appointment of a new Chief Executive, this annual report highlights many achievements in implementing the Basin Plan while acknowledging the significant challenges that remain.



One of the starkest contrasts this year was the massive turnaround in conditions, which saw the volume of water in governmentowned dams in the Murray-Darling Basin more than double

within two years. The figures are incredible: these dams were 36 per cent full in June 2020, compared with 89 per cent by June 2022. This abundance of water across much, but not all, of the Basin has had its challenges, with flooding in some parts. Overall, there is optimism about what this water brings to industries, communities and the environment, while knowing the next drought is coming as a matter of 'when' not 'if'.

While welcome, the turnaround in conditions accompanied by extreme weather events has created challenges. At Hume Dam we focussed extensive efforts on flood operations to protect the dam, limit flood damage to downstream communities and respond to the elevated risk of hypoxic blackwater from widespread flooding across NSW. This year the changes to the MDBA's responsibilities were legislated, with compliance moving to the Inspector-General of Water Compliance in August 2021. We have continued to manage our critical role in overseeing the implementation of the Basin Plan and operating the River Murray system on behalf of the Basin state governments.

I am pleased to report once again that progress was made on all our priorities. However, with two years remaining for the Basin Plan's full implementation, there are still significant challenges to be overcome.

#### Implementation of the Basin Plan

We are reaching a critical time in the implementation of the Basin Plan. This year we have again worked collaboratively with Basin state and territory governments and, overall, we are achieving our key performance indicator of having an operational Basin Plan that is adaptive to changing conditions. However, New South Wales has not submitted water resource plans (WRPs) that meet the 55 requirements of the Basin Plan. Without these plans in place, the Inspector-General of Water Compliance cannot do his job effectively and we are unable to meet our performance target on accrediting WRPs. WRPs are accredited and in operation in Queensland, South Australia, Victoria and the Australian Capital Territory. Sustainable diversion limits (SDLs) are critical elements of the Basin Plan. They represent the longterm average annual limit of consumptive water that can be used in each surface water and groundwater management unit of the Murray-Darling Basin. We successfully finalised the Registers of Take for the 2020-21 water year, which tracked how much water was taken across the Basin for 29 surface water and 80 groundwater areas, and we provided these to the Inspector-General of Water Compliance so he can monitor and ensure compliance with the limits.

In developing the priorities for where water for the environment would be used, we collaborated with First Nations, state and federal agencies, environmental water holders and communities to develop the annual Basin environmental watering priorities for the 2021–22 water year. These ensure the effective use of water for the environment each year to contribute to the best outcomes under the Basin Plan.

# Operating the River Murray system for partner governments

We maintain and operate the River Murray system on behalf of partner governments and in accordance with the Murray–Darling Basin Agreement to achieve a healthy working Basin through the integrated management of water resources.

Our success in this area is reviewed by the Independent River Operations Review Group (IRORG), which looks closely at our activities in managing this vital resource. The latest review for 2020-21 found that the Authority generally fulfilled its obligations during the year, and it pointed to the need for improved communications with Basin jurisdictions related to our operations at Lake Victoria. The recommendations from IRORG on many aspects of river operations and governance continue to provide crucial input to guide our future river management. Our target for maintaining or improving the environmental health of key icon sites through The Living Murray program was not met, with two sites maintaining a good rating and five sites showing decline. It is important to note that the extremely hot and dry conditions from 2017 to 2019 will take some time to recover from. Also, the environmental health indicators in this annual report are based on monitoring results from the previous year (2020–21). In that year we saw a return to slightly cooler and more moderate conditions than previous years, but rainfall was still below average.

The impacts of the 2019–20 upper Murray bushfires presented additional water quality challenges in Lake Hume and immediately downstream as ash and debris washed into the dam. In 2021–22 the MDBA continued to coordinate water quality monitoring to adaptively manage Lake Hume releases to maintain good water quality. We also participated in a New South Wales led incident coordination group to respond to the elevated risk of hypoxic blackwater from widespread flooding across New South Wales and specifically in the Menindee Lakes and lower Darling River.

The widespread flooding in across the Basin created the need for flood operations in many catchments. At Hume Dam from August 2021 to January 2022 the MDBA undertook regular flood operations, and we liaised with relevant agencies to provide advice on releases and planned changes to protect both the dam and communities downstream. We communicated consistently and regularly with impacted communities to keep them abreast of changes.

We are pleased to report that for the 11th year in a row the modelled river salinity levels at Morgan in South Australia have met requirements for ensuring the protection of economic, environmental, cultural and social values.

# Improving transparency and confidence in the Basin Plan

Improved transparency and confidence in the Basin Plan, River Murray operations and the MDBA is critical to implementing the ongoing water reform that will deliver a healthy working Basin for future generations.

The MDBA's greater regional footprint is enhancing its ability to engage face to face with Basin communities and develop constructive relationships built on trust and improved understanding. An evaluation of the Regional Engagement Officers program during the year showed it has been highly effective at providing two-way information sharing opportunities.

In 2020 we implemented a 3-year communications and engagement plan, which continues to guide our engagement, communications and media activities. It was informed by research in the same year about stakeholder needs, knowledge, attitudes and perceptions.

Authority Chair Sir Angus Houston has also led a program of listening tours in various locations around the Basin, bringing together key stakeholders and agency partners to look at, listen to and understand the diversity of issues and viewpoints that exist.

### Applying best science and knowledge

We continue to back our decisions with the best available science, data and information that builds trust and provides transparency about water management decisions. Over the past 12 months, significant effort has been invested into Basin research, with key programs developed to lead Basin science on the pathway to the Basin Plan Review in 2026.

The Murray-Darling Water and Environment Research program has brought together esteemed science and research organisations and academic institutions to deliver research in critical areas. The outcomes of this research will help inform water and environment management decisions that will improve outcomes for the Basin and its communities.

The upgrade of the Murray–Darling Basin's 24 river models will ensure these vital tools are fit to support future decisions. Spanning 4 years, the River Modelling Uplift Project will integrate all existing MDBA and state government river models by July 2024, ensuring water managers have timely access to the same modelling data.

The Basin Condition Monitoring Program will deliver new monitoring and reporting of economic, social, and environment conditions in the Murray–Darling Basin. The work program has been co-designed with Basin communities through the Regional Community Forums, First Nations groups and the Basin governments.

Together, these programs will support future efforts to deliver a strengthened Basin Plan that is climate-ready and is developed with and supported by the community.

We have also continued to draw on the knowledge and expertise of First Nations groups, the Basin Community Committee, the Advisory Committee for Social, Economic and Environmental Sciences and the Independent Assurance Committee, which was in place while our compliance responsibilities remained.

#### Looking forward

While in the short term we expect to continue to see above average rainfall in many parts of the Basin, we are acutely aware that the longer-term outlook is for less water and that the impacts of climate change require adaptation efforts now. We know that changes in global and regional climate patterns will have significant impacts on water availability for both communities and the environment across the Murray–Darling Basin. The MDBA is therefore investing in science and knowledge to support good decision-making, helping communities adapt to the changing climate.

In the year ahead a key priority remains to drive the successful implementation of the Basin Plan, with particular focus on two critical aspects behind schedule - the outstanding New South Wales water resource plans, and fully implementing the Sustainable Diversion Limit Adjustment Mechanism (SDLAM) to achieve the 450 gigalitres of water for the environment as required in the Basin Plan and the 605 gigalitres of water for consumptive use. We will continue to prepare for the 2025 Basin Plan Evaluation and the 2026 Basin Plan Review, which will help identify what has worked or not and what the next steps may be.

An ongoing priority is, of course, to operate the River Murray efficiently and effectively for partner governments under whatever conditions the year may present and using the best science and information to inform our decisions. Building community confidence continues to be a priority, as it underpins the overall success of the implementation. Our efforts in connecting with stakeholders and communities and being transparent across our operations will be at the heart of our work ongoing.

I thank all our staff for their efforts this year in supporting the implementation of the Basin Plan and running the River Murray on behalf of Basin governments. The Murray–Darling Basin is a significant national resource relied upon by 2.3 million people, over 40 First Nations, countless native habitats, and thousands of businesses. I am proud to be part of an organisation that is passionate and committed to the long-term sustainability of such an important resource.

Chief Executive Andrew McConville



Figure 1: Why the Murray-Darling Basin is important

### About the Murray–Darling Basin

The Murray–Darling Basin is Australia's most important water catchment. It covers more than one million square kilometres in the south-east of Australia, comprising 14% of Australia's land mass. The range of landforms and climatic conditions means that it has one of the most variable climates in the world.

The Basin stretches from southern Queensland through New South Wales, Victoria, the Australian Capital Territory and into South Australia. It is home to 2.3 million people, including over 40 Aboriginal Nations. Water is central to the cultural, social and spiritual identity of First Nations people, and they rightly seek to be more actively involved in the planning and management of water in the Basin.

The Murray–Darling Basin is called a 'basin' because it's a catchment area where water collects and drains – in this case into the Murray and Darling rivers and eventually out into the Southern Ocean.

The Basin's network of interconnected rivers, floodplains and groundwater reserves supports a diverse range of plants and animals, including some that can only be found in Australia. Over 100 sites are registered as nationally important, and some are recognised as internationally important under the Ramsar Convention. Under The Living Murray program, 7 icon sites have been identified and protected for their ecological and cultural significance. The Basin is one of Australia's most productive agricultural regions. The Basin also supports a thriving tourist industry, which has flow-on benefits for the local communities.

The MDBA's website has more information about the Murray–Darling Basin and why it's important (https://www.mdba.gov.au/importance-murraydarling-basin).

### The Basin Plan

The Basin Plan was legislated in 2012 under the *Water Act 2007*. It was the result of the realisation that there needed to be a plan to manage the Basin as a whole system for the benefit of the Australian community. Over the years, increasing human use of Basin water resources, combined with droughts and the impact of climate change, had led to a decline in the environmental health of the Basin.

In essence, the Basin Plan sets the amount of water that can be taken each year, balancing the needs of water users with the need to sustain a healthy river system (see Figure 2).

To be successful, the Basin Plan relies on cooperation from the 6 Basin governments and adaptive management to adjust to new conditions and information. The MDBA's website has detailed information about the Basin Plan, including its development and evaluation (https://www.mdba.gov. au/basin-plan-roll-out).



Figure 2: Key elements of the Basin Plan

### Operating context for 2021-22

The 2021–22 reporting period was marked by several changes: a shift in the MDBA's responsibilities, drought-breaking rainfall across most of the Basin, and the appointment of a new MDBA Chief Executive.

Following amendments to the Water Act and the Basin Plan, the MDBA's compliance responsibilities were moved to the Inspector-General of Water Compliance (IGWC). The IGWC was established on 5 August 2021. The MDBA retains responsibility for overseeing implementation of the Basin Plan and operating the River Murray system on behalf of the Basin state governments.

Even though many COVID restrictions were lifted during the reporting period, there were still challenges related to the COVID-19 pandemic. The MDBA has moved to step 4 in a 4-step COVID transition plan, meaning that MDBA offices are opened to capacity and staff can either return to the office or work from home under an agreement. From a climate perspective, the La Niña conditions that started in late 2021 continued through autumn into winter 2022, resulting in above-average rainfall for most of the Basin. On 22 June 2022 the whole-of-Basin water storages were at 91% capacity, compared with 54% at the same time in 2021. In the northern Basin, where conditions had been particularly dry in previous years, storages were at 97% capacity. The rain generally had positive outcomes for the Basin, reversing some of the damage done during the 2019–20 drought and bushfires, although the wet conditions also caused some flooding.

In June 2022, Mr Andrew McConville was appointed Chief Executive, following Phillip Glyde's retirement. Mr Glyde was with the MDBA for 6 years, overseeing major events including the northern Basin review, the 2017 SDLAM Determination, and the 2020 Basin Plan Evaluation.



Figure 3: Storage capacity across the Basin as of 22 June 2022

### About the Murray-Darling Basin Authority

MDBA's purpose: To advance the sustainability, productivity, wellbeing and resilience of the Murray–Darling Basin and its communities.

#### The Authority

The Murray-Darling Basin Authority operates under the *Water Act 2007* (the Water Act). It is responsible for implementing the Basin Plan and operating the River Murray on behalf of the Australian Government and the governments of New South Wales, Victoria and South Australia in accordance with the requirements of the Murray-Darling Basin Agreement (Schedule 1 of the Water Act).

Key functions include to:

- prepare, implement and review an integrated plan for the sustainable use of the Basin's water resources – the Basin Plan
- operate the River Murray system and efficiently deliver water to users on behalf of partner governments
- measure, monitor and record the quality and quantity of the Basin's water resources
- support, encourage and conduct research and investigations about the Basin's water resources and dependent ecosystems
- advise the Australian Government water minister on the accreditation of state water resource plans
- provide water rights information to facilitate water trading across the Basin
- engage and educate the Australian community about the Basin's water resources.

#### Portfolio and ministers

During the reporting period, the MDBA was part of the portfolio of the Department of Agriculture, Water and the Environment [from 1 July 2022, the Department of Climate Change, Energy, the Environment and Water portfolio] reporting to the Minister for the Environment and Water, the Hon Keith Pitt MP. The Hon Tanya Plibersek MP was sworn in as the Minister for the Environment and Water on 1 June 2022.

#### The MDBA's role

The MDBA has 2 key roles:

- to drive the successful implementation of the Basin Plan
- to operate the River Murray on behalf of the Basin governments.

#### Engaging with stakeholders

The MDBA's ability to carry out its role and deliver on its purpose relies on extensive collaborations and a network of partnerships. The holistic model for water management and planning in the Basin necessitates balancing potentially competing interests, including environmental health, community needs, cultural values, and use of resources for industries. In the context of climate change and socioeconomic issues, the MDBA's success in delivering its objectives relies on adaptive management and investment in science and knowledge. It also relies on stakeholders having confidence in the Basin Plan, River Murray operations and the MDBA. The MDBA has a strong focus on accessible and timely information and clear communication to promote understanding of roles and responsibilities and key issues.

Collaborations and interdependencies include:

- Basin governments the MDBA works with the Australian Government and the governments of New South Wales, Victoria, Queensland, South Australia and the Australian Capital Territory to coordinate work programs and oversee the implementation of the Basin Plan.
- First Nations the MDBA engages with First Nations to ensure their perspectives are considered in the implementation, monitoring and evaluation of the Basin Plan. There are over 40 Aboriginal Nations in the Basin. The MDBA provides support to the Northern Basin Aboriginal Nations and the Murray Lower Darling Rivers Indigenous Nations. These are the peak Traditional Owner-based organisations in the Basin with a focus on natural resource management.
- Basin communities the MDBA works with Basin communities in managing the Basin in many ways, including through advisory groups and Regional Engagement Officers.
- Australian Government agencies the MDBA works with other agencies including the Department of Climate Change, Energy, the Environment and Water, the Commonwealth Environmental Water Office (CEWO), the Australian Competition and Consumer Commission (ACCC) and the Bureau of Meteorology (BoM), which also have roles under the Water Act.
- science and research communities the MDBA has research collaborations with universities and research organisations. A key collaborator is the CSIRO.
- industry and special interest groups the MDBA works with local government, agriculture, environmental, tourist and industry groups that are stakeholders in the Basin.



Figure 4: MDBA collaborations and stakeholders

# Case study: Engaging with stakeholders at the River reflections conference

The MDBA is committed to leading a proactive and coordinated approach with water management agencies to reach and engage the diverse audiences of the Basin. This includes continuing to host the annual water conference, 'River reflections'.

The inaugural River reflections conference was held in Griffith in 2021. A key message was the recognition that Basin lives and livelihoods depend on communities and industries working together towards common goals.

This year's sold-out conference was held in Mildura over the first 2 days of June 2022. The conference was addressed by the Hon Tanya Plibersek MP, on her first full day in the job as the Australian Government Minister for the Environment and Water; by Authority Chair Sir Angus Houston AK, AFC (Ret'd); and by many speakers from the MDBA and Basin state agencies, local communities, water user groups and individual businesses.

The conference discussed a range of topics, including the seasonal outlook; trends in irrigation development; environmental outcomes; and sustainability for success – growers' stories about adapting to change.

A main driver of hosting the conference in a regional centre is being able to hear local perspectives. Several panel discussions featuring agriculture, tourism, water resource and other industry representatives were a highly valued feature of the event.

A key message of the 2022 River reflections conference was the need to respond to the changing conditions and climate by adjusting our approach when necessary. Ensuring a healthy working Basin into the future is something that requires partnerships between water managers, scientific experts, and communities, all working together.

### Champions support Regional Engagement Officers

Since 2017 the MDBA has been increasing its regional presence through a network of offices and the Regional Engagement Officers (REOs) program. The REOs bring insights from their local communities and act as independent facilitators in the implementation of the Basin Plan. Each REO is paired with an MDBA 'champion' at SES level to strengthen communications (see Figure 5). This year, the REO program was expanded in partnership with the Department of Agriculture, Water and the Environment.

### Location

About one-third of MDBA workforce are located outside of Canberra in 7 offices in various parts of the Basin (see Table 1). This meets the government's decentralisation target set for the MDBA and enables the MDBA to engage more effectively with stakeholders. It also has flow-on effects in regional areas, including creating jobs and boosting economic diversification. Further details on the numbers of MDBA staff in each state and territory are in Employee arrangements (page 86).

Table 1. MDBA staff per location as of 30 June 2022

MDBA office location	First Nations Country	Number of staff
Adelaide	Kaurna	16
Albury-Wodonga	Dhudhuroa	12
Canberra	Ngunnawal	187
Goondiwindi	Bigambul	8
Griffith	Wiradjuri	15
Mildura	Latji Latji	17
Murray Bridge	Ngarrindjeri	17
Toowoomba	Jarowair and Wakka Wakka	0
Dispersed		7
Total		279



Figure 5: Location of MDBA Regional Engagement Officers

#### MDBA people and values

On 30 June 2022 the MDBA had 259 ongoing staff and 20 non-ongoing staff.

The MDBA's work requires specialists working in areas including engineering, hydrology, environment science, social science, communications, project management, law and policy. To build its workforce and cultivate a diverse, inclusive and agile culture the MDBA has been transitioning to a capabilitybased operating model. Strengthening capability is one of the 5 strategic pillars in the MDBA's People Strategy 2021-2026, which is the framework for ensuring that we have a capable, engaged, and connected workforce with a diverse, inclusive and agile culture (see page 83).

In 2021 the MDBA developed a capabilities and skills model which shows the differing skills and capabilities the workforce requires to deliver against the strategic objectives of the agency. These are broken into technical, operational and core skills required in our workforce (see Figure 6).



#### **MDBA CAPABILITIES & SKILLS MODEL**

Figure 6: MDBA capabilities and skills model

The capability model positions the MDBA to effectively respond to change and meet the challenges of implementing the Basin Plan. Staff are guided by both the Australian Public Service (APS) values and the MDBA's CREATE values.



Figure 7: MDBA values



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### Part 2–Performance

#### Introductory statement

I, as the accountable authority of the Murray–Darling Basin Authority, present the 2021–22 annual performance statement as required under the Commonwealth *Public Governance, Performance and Accountability Act 2013* (PGPA Act) (paragraph 39(1)(a)).

In my opinion, this annual performance statement is based on properly maintained records, accurately reflects the performance of the entity, and complies with the PGPA Act (subsection 39(2)).

Andrew McConville, Chief Executive
10 October 2022

### Reporting approach

The PGPA Act sets out how corporate Commonwealth entities, such as the Murray–Darling Basin Authority, must report. Figure 8 shows the links between the annual report and other aspects of the performance framework. The MDBA manages its performance against a single outcome. The key deliverables are measured against the strategic goals listed in the corporate plan.



Figure 8: MDBA performance framework

#### MDBA's Purpose: To advance the sustainability, productivity, wellbeing and resilience of the Basin and its communities

MDBA's goals	Key Performance Indicators		
Goal 1 Drive the successful implementation of the Basin Plan	<ul> <li>KPI 1 The Basin Plan is operational and adaptive to changing conditions</li> <li>KPI 2 Use the best available environmental, social, cultural and economic considerations to report on the Basin Plan and to make robust and defensible decisions</li> </ul>		
Goal 2 Efficiently and effectively operate the River Murray system for partner governments	<ul> <li>Operate the River Murray system in accordance with the MDB Agreement</li> <li>Maintain and improve the health of the River Murray system (and the Basin where relevant) in accordance with the Murray-Darling Basin Agreement and associated agreements</li> </ul>		
Goal 3 Improve transparency and confidence in the Basin Plan, River Murray operations and the MDBA	<ul> <li>KPI 5 Stakeholders are aware of and understand the Basin Plan, River Murray operations and the MDBA's role</li> <li>Collaborate and cooperate with Basin governments and other external stakeholders to share knowledge, collect and integrate data and manage it appropriately</li> </ul>		

Figure 9: Overview of MDBA performance measures

Меа	sures and measure type	Effectiveness	Efficiency	Output	Qualitative	Quantitative	Short term	Medium term	Long term
1.1	Percentage of water resource plans that are accredited	•				•		•	
1.2	SDL accounting framework is revised and applied	•			•				•
1.3	Effective planning for environmental water use	•		•	•				•
2.1	The MDBA reports on the effectiveness of the Murray-Darling Basin Plan			•	•				•
2.2	Quality assurance framework ensures science outputs are robust and adequately reviewed to strengthen evidence for key decisions			•	•	•	•		•
3.1	The MDBA has coordinated and overseen the asset activities as agreed and approved by Ministerial Council in the Annual Work Plan			•	•				•
3.2	Number of adverse rulings from jurisdictional dam safety regulators	•				•			•
3.3	Number of unscheduled major outages of assets		•			•			•
3.4	The MDBA has fulfilled its efficiency related obligations under the Objectives and Outcomes as independently assessed		•			•			•
3.5	The MDBA has fulfilled its effectiveness related obligations under the Objectives and Outcomes as independently assessed	•				•			•
4.1	Percentage of report cards with maintained or improved environmental health for 7 key sites of the River Murray system	•				•			•
4.2	Evidence that key site report cards were used in the annual planning for the coordinated delivery of water for the environment to maintain and improve the health of the River Murray system	•			•				•
4.3	Percentage of Basin Salinity Management 2030 Strategy salinity target in Schedule B of the Murray-Darling Basin Agreement achieved	•				•			•
4.4	Percentage of BSM 2030 biennial audit findings that are progressed			•		•			•
4.5	Timely monitoring and reporting on water quality in the River Murray system to aid in decision making		•		•				•
5.1	Awareness and understanding of the Basin Plan and River Murray operations based on MDBA stakeholder and/or market research (conducted every 3 years)	•			•				•
5.2	The MDBA delivers stakeholder engagement activities which improve stakeholder awareness and understanding of the Basin Plan, River Murray operations and MDBA's role	•			•				•
6.1	Collaborate and cooperate with research institutions and other external entities to collect data and share knowledge			•	•				•
6.2	Number of publicly available: a) Data sets, b) Data set associated analysis			•		•			•

## Summary of performance

This section provides a summary of overall performance. There are more details and analysis of results under each goal.

Table 2: Performance against key	performance	indicators	(KPIs),	2021-22
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Strategic goal	КРІ	Result	Comment
<b>Goal 1</b> : Drive the successful implementation of the Basin Plan	<b>KPI 1</b> : The Basin Plan is operational and adaptive to changing conditionsPartially met		Two of the 3 measures for KPI 1 were met. The SDL accounting framework is in place and the annual environmental priorities report has been published.
			For the measure 'percentage of water resource plans (WRPs) that are accredited' the target of 100% was not met. WRPs are developed by Basin governments and accredited by the Australian Government water minister with the advice of the MDBA. The MDBA has assessed each of the 33 WRPs for accreditation, but 20 have required changes. This has delayed recommending them for accreditation.
	<b>KPI 2</b> : Use the best available environmental, social, cultural and economic considerations to report on the Basin Plan and make robust and defensible decisions	Met	Both measures for KPI 2 have been met. The Basin Plan Annual Report was prepared and submitted on schedule. Publication has been delayed due to the May 2022 federal election. The Science Quality Assurance Guidelines (SQAG) that inform the quality assurance framework have been developed and are currently being implemented.

Strategic goal	КРІ	Result	Comment
<b>Goal 2</b> : Efficiently and effectively operate the River Murray system for partner governments	<b>KPI 3</b> : Operate the River Murray system in accordance with the MDB Agreement	Met	A Dam Safety NSW audit found some non- conformances with the operator's dam safety management system for Yarrawonga Weir. As a result the dam operator has revised the dam safety management system and operating and maintenance plan and commenced implementation of these plans. The dam safety emergency plan will be revised by the end of October 2022. The current dam safety emergency plan is appropriate and in use until it is replaced by the new plan. There are no concerns regarding the safe operation of Yarrawonga Weir.
	<b>KPI 4</b> : Manage and improve the health of the River Murray system (and the Basin where relevant) in accordance with the Murray-Darling Basin Agreement and associated agreements	Partially met	The target for maintaining the environmental health of 7 icon sites was not met, because of the continuing impact of hot, dry conditions across the southern Murray-Darling Basin in recent years. Targets relating to salinity and water quality were met.
<b>Goal 3</b> : Improve transparency and confidence in the Basin Plan, River Murray operations	<b>KPI 5</b> : Stakeholders are aware of and understand the Basin Plan, River Murray operations and the MDBA's role	Met	Survey responses to the River reflections conference 2021 rated enjoyment of the event at 4.6 out of 5, with 91% providing a rating between 4 and 5.
and the MDBA	MDBA's role         BA         KPI 6: Collaborate and cooperate with Basin governments and other external stakeholders to share knowledge, collect and integrate data and manage it appropriately		Science and knowledge are core to water resource planning and management in the Murray–Darling Basin. Over the past 12 months, significant efforts have been invested into Basin research. There is a strong focus on transparency and community- facing information sharing. The MDBA has established 6 Regional Community Forum groups to engage with community members on Basin science and to strengthen the capture and use of local knowledge.

### Goal 1 Drive the successful implementation of the Basin Plan

### Role of the MDBA

The MDBA's role is to lead the implementation of the Basin Plan in collaboration with Basin state and territory governments and other Australian government agencies.

### **Expected** impact

- Accreditation of water resource plans (WRPs) which are consistent with the Basin Plan
- WRPs evolve and adapt to new information.
   WRPs are reaccredited to reflect improvements
- Improved Murray–Darling Basin water resources accounting and reporting
- Water use across the Basin is reported transparently to enable assessment of compliance with sustainable diversion limits (SDLs)
- Effective use of environmental water
- Effectiveness of the Basin Plan is known and understood
- Evidence-based policy and decision making founded on robust and defensible data

#### 2021-22 key activities

- Assess water resource plans for consistency with the Basin Plan for accreditation including enabling amendments to accredited water resource plans
- Complete the sustainable diversion limits accounts and actions arising and progress SDL accounting improvements
- Develop annual watering priorities
- Undertake effectiveness and impact assessment
   of the Basin Plan
- Conduct quality research to inform Basin water resource management

Source: Murray-Darling Basin Authority Corporate Plan 2021-22

### Performance and analysis

Goal 1 has 2 key performance indicators:

#### KPI 1: The Basin Plan is operational and adaptive to changing conditions

**KPI 2:** Use the best available environmental, social, cultural and economic considerations to report on the Basin Plan and make robust and defensible decisions

#### Performance on KPI 1

changing conditions

The successful implementation of the Basin Plan relies on having systems in place – including water resource plans and sustainable diversion limit accounting – to set and account for how much water is used across the Basin. While the MDBA leads the implementation of the Basin Plan, it is a collaborative arrangement involving many entities and changing conditions. So, while the MDBA may fulfill a particular responsibility, the target may not be met if there is a shortfall in another area.

The MDBA met its targets on 2 of the 3 measures in KPI 1. The target of accreditation of 100% of water resource plans (WRPs) is yet to be met, given it relies on NSW submitting plans for assessment by the MDBA, and these plans meeting Basin Plan requirements and being accredited by the Commonwealth minister. Although not all targets have been met, overall the KPI – having an operational Basin Plan that is adaptive to changing conditions – is being achieved.

КРІ	Measure	2021-22 Target
KPI 1: The Basin Plan is	1.1 Percentage of WRPs that are	100%
operational and adaptive to	accredited	

and a second second

#### Table 3: Performance against targets for Goal 1, KPI 1

1.3 Effective planning for environmental water useDelivery of Basin annual environmental water prioritiesMet			
	1.3 Effective planning for environmental water use	Delivery of Basin annual environmental water priorities	Met

1.2 SDL accounting framework is SDL water take report published

Note: on 30 June 2022, none of the 20 outstanding New South Wales WRPs had been accredited.

Result

Not met: see note

below

Met

### Most water resource plans are still to be accredited

Measure 1.1 is 'Percentage of WRPs that are accredited'. The 2021–22 target is '100%'.

WRPs are a key part of the Basin Plan because they set out the rules on water management at a local or catchment level. While the MDBA assists Basin states in the preparation of WRPs and assesses and recommends them for accreditation, it is the Australian Government minister responsible for water who accredits WRPs.

The delay in having all the Basin's 33 WRPs accredited continues to be an issue for the implementation of the Basin Plan. On 30 June 2022, 13 WRPs had been accredited. The outstanding 20 are in New South Wales. They are in the process of being redrafted and resubmitted for assessment by the MDBA. On 30 June 2022, one of the 20 outstanding WRPs had been formally resubmitted for assessment.

Once a WRP is accredited, the Inspector-General of Water Compliance is responsible for ensuring compliance with that plan. The WRP process allows for further amendments of WRPs in keeping with adapting to changing conditions in the Basin.

Basin state water resource plans [https://www.mdba. gov.au/basin-plan/water-resource-plans/state-waterresource-plans] are published on the MDBA's website, which also shows the status of all WRPs.

#### SDL accounting framework is in place

Measure 1.2 is 'SDL accounting framework is revised and applied'. The 2021–22 target is 'SDL water take report published'.

The MDBA met its responsibilities for SDL accounting when the Registers of Take for the 2020-21 water year were finalised and endorsed by the Authority in March 2022. The Registers of Take track how much water is taken across the Basin for 29 surface and 80 groundwater areas. They have been provided to the Inspector-General of Water Compliance and will be published on the MDBA's website. In 2020-21, the Barwon-Darling in NSW was the only area to exceed its SDL water take. Responsibility for compliance with SDLs transitioned to the Inspector-General of Water Compliance in August 2021. The MDBA continues to analyse water availability, trends and patterns in water use across the Basin, as well as being responsible for assessment and assurance of SDL accounts annually. Details are recorded in the Annual water take report 2019-20 [https://www.mdba.gov.au/publications/ mdba-reports/water-take-reports-under-basin-plansustainable-diversion-limits], which was published in November 2021.

# Basin annual environmental watering priorities are published

Measure 1.3 is 'Effective planning for environmental water use'. The 2021–22 target is 'Delivery of Basin annual environmental water priorities'.

To effectively plan for environmental water use across the Basin the MDBA prepares a report ahead of each water accounting year. In June 2022, the MDBA published its report on the Basin's annual environmental watering priorities [https://www. mdba.gov.au/publications/mdba-reports/basinannual-environmental-watering-priorities]. This fulfills an obligation under chapter 8 of the Basin Plan 2012.

As with the previous year, the MDBA collaborated with First Nations to develop the environmental watering priorities. The MDBA reports annually at the end of each water year on how First Nations' values and uses were considered in the planning and delivery of water for the environment in the Basin. The report on First Nations participation in water for the environment 2020-21 [https://www.mdba.gov. au/node/5788] was published on the MDBA's website in December 2021.
#### Performance on KPI 2

Adaptive management, supported by science and knowledge, is vital to successfully implementing the Basin Plan. The measures for KPI 2 set targets for reporting on the effectiveness of the Basin Plan and ensuring that the best science is used in decision-making. Both targets were met. The Basin Plan Annual Report was prepared on time and will be published after it has been tabled in parliament. The science quality assurance framework has been developed with the Science Quality Assurance Guidelines being used to ensure the quality and integrity of the science used.

#### Table 4: Performance against targets for Goal 1, KPI 2

КРІ	Measure	Target	Result
<b>KPI 2</b> : Use the best available environmental, social, cultural and economic considerations to report on the Basin Plan and make robust and defensible decisions	2.1 The MDBA reports on the effectiveness of the Murray-Darling Basin Plan	Basin Plan annual report published	Met <sup>t</sup>
	2.2 Quality assurance framework ensures science outputs are robust and adequately reviewed to strengthen evidence for key decisions	Development and implementation of the science quality assurance framework	Met

t Publication of the report has been delayed by the May 2022 federal election.

#### Basin Plan Annual Report is published

Measure 2.1 is 'The MDBA reports on the effectiveness of the Murray-Darling Basin Plan'. The 2021-22 target is 'Basin Plan annual report published'.

The MDBA completed the Basin Plan Annual Report 2020-21 in December 2021. It was endorsed by the Authority and submitted to the Australian Government minister responsible for water by 31 December 2021, as required under section 52A of the Water Act. The minister is required to table the report in each house of parliament within 15 sitting days of receiving the report. Because of the May 2022 federal election, the report was not tabled by 30 June 2022. The report will be published on the MDBA's website as soon as it has been tabled in line with the statutory timeframe.

# Science framework is developed and implemented

Measure 2.2 is 'Quality assurance framework ensures science outputs are robust and adequately reviewed to strengthen evidence for key decisions'. The 2021–22 target is 'Development and implementation of the science quality assurance framework'.

The MDBA's science quality assurance framework includes the development and implementation of the Science Quality Assurance Guidelines. The guidelines are in the form of an interactive PDF that guides users through the quality assurance steps required for the development, procurement and use of MDBA science. This will ensure the integrity and quality of the science.

As part of a continuous improvement process the SQAG will be formally reviewed in May–June each year. Opportunities for the guidelines to be built into existing business operations and processes will be explored. This will include integration with the new ePMO 365 platform. Targets for future years will be based on increased use of the SQAG each year.

### Goal 2 Efficiently and effectively operate the River Murray system for partner governments

#### Role of the MDBA

The role of the MDBA is, in partnership with Basin governments, to promote and coordinate planning, management and sharing of water and other natural resources of the Basin. The water sharing and joint management arrangements for this partnership are set out in the Murray-Darling Basin Agreement 2008. The joint programs include River Murray operations (RMO) and natural resource management programs.

The natural resource management programs have evolved as a shared response to the need to manage some of the environmental consequences of water use in the Basin. A work plan is agreed between the joint program parties and the MDBA specifying the key activities to be undertaken.

#### **Expected** impact

- River Murray Operations assets allow management and delivery of water that is fit for the purpose for which it is to be used, efficiently, effectively and safely.
- The waters of the River Murray system are:
  - shared between the states of New South Wales, Victoria and South Australia as per the Murray-Darling Basin Agreement
  - managed to meet multiple outcomes and objectives set by partner governments.
- Improved environmental outcomes in the southern connected system, consistent with the Basin Plan. Delivery of all water for the environment in the southern basin is coordinated, including the jointly held water portfolio. Water management, monitoring and First Nations engagement at the River Murray icon sites supports adaptive management.

 Partner governments jointly manage salinity to deliver the Basin Salinity Management 2030 Strategy, consistent with Schedule B of the Murray-Darling Basin Agreement. The water quality of the River Murray system is monitored consistent with the Murray-Darling Basin Agreement and informs improved management.

#### 2021-22 key activities

- Implement asset management strategies and oversee asset management activities
- Manage and deliver Basin government water shares in accordance with the Murray-Darling Basin Agreement
- Maintain and improve the health of the River Murray system (and the Basin where relevant) in accordance with the Murray–Darling Basin Agreement and associated agreements

Source: Murray-Darling Basin Authority Corporate Plan 2021-22

#### Performance and analysis

Goal 2 has 2 key performance indicators (KPIs):

#### KPI 3: Operate the River Murray system in accordance with the Murray-Darling Basin Agreement

**KPI 4:** Maintain and improve the health of the River Murray system (and the Basin where relevant) in accordance with the Murray–Darling Basin Agreement and associated agreements

#### Performance on KPI 3

KPI 3 measures the following key activities:

- Implement asset management strategies and oversee asset management activities.
- Manage and deliver Basin government water shares in accordance with the Murray-Darling Basin Agreement.

The table below summarises performance against targets for the measures in KPI 3.

#### Table 5: Performance against targets for Goal 2, KPI 3

КРІ	Measure	2021-22 Target	Result
<b>KPI 3</b> : Operate the River Murray system in accordance with the Murray-Darling Basin Agreement	3.1 The MDBA has coordinated and overseen the asset activities as agreed and approved by the Ministerial Council in the Annual Work Plan	Performance endorsed by River Murray Operations Committee	Met
	3.2 Number of adverse rulings from jurisdictional dam safety regulators	Zero	Met. A Dam Safety NSW audit found some non-conformances with the operator's dam safety management system for Yarrawonga Weir. As a result the dam operator has revised the dam safety management system and operating and maintenance plan and commenced implementation of these plans. The dam safety emergency plan will be revised by the end of October 2022. The current dam safety emergency plan is appropriate and in use until it is replaced by the new plan. There are no concerns regarding the safe operation of Yarrawonga Weir.
	3.3 Number of unscheduled major outages of assets	Zero	Met

КРІ	Measure	2021-22 Target	Result
	3.4 The MDBA has fulfilled its efficiency related obligations under the Objectives and Outcomes as independently assessed	Met	Met
	3.5 The MDBA has fulfilled its effectiveness related obligations under the Objectives and Outcomes as independently assessed	Met	Met

#### The MDBA operates the River Murray system

The MDBA maintains and operates the River Murray system on behalf of partner governments and in accordance with the Murray–Darling Basin Agreement to achieve a healthy working Basin through the integrated management of water resources.

The River Murray is Australia's longest river. It flows for 2,500 km through New South Wales, Victoria and South Australia. The river sustains towns and communities and agricultural production, and it provides habitat for many unique Australian plants and animals.

Basin states have long-standing arrangements, dating back more than 100 years, to jointly manage the water and build the assets of the River Murray system. The MDBA operates the River Murray system on behalf of the New South Wales, Victorian and South Australian governments. The Murray-Darling Basin Agreement (the agreement) sets out the water sharing rules across the states.

A detailed overview of the management of the River Murray system can be found on the MDBA website https://www.mdba.gov.au/water-management.

Under the agreement, the MDBA and the Basin states store, manage, deliver and share water; operate salinity interception schemes; enable navigation; and support recreation and tourism. Regular River Murray updates about rainfall, inflows, salinity and river operations are published on the MDBA website.

#### The Independent River Operations Review Group reviews river operations

The MDBA's maintenance and operation of the River Murray system is reviewed by the Independent River Operations Review Group (IRORG). IRORG is an advisory committee established under section 203 of the Water Act.

The outcome for a number of measures for this KPI are verified through annual reviews conducted by IRORG. The annual review is based on data from the previous year due to the lead time involved in collecting and reporting the data, but IRORG also assesses the practices and procedures of the river operations team which are the basis of activity for the current year.

The policies and processes for operating the river system are well prescribed and do not change from year to year other than to make incremental improvements. In this regard, a positive assessment from IRORG for the previous year can be taken as a general satisfaction with the operating procedures carried forward to the current water year.

The IRORG review considers the MDBA's performance in managing the river to meet the states' consumptive and environmental water demands and compliance with the provisions of the Objectives and Outcomes document agreed by the Basin Officials Committee (*Objectives and outcomes for river operations in the River Murray system*, various dates).

IRORG's review process is based on:

- issues documented in the MDBA's annual report River Murray system summary of river operations
- issues raised in interviews and in formal submissions by jurisdictions
- any issues arising from IRORG's own review of available information.

#### Water year operating context

The MDBA water year runs from June to May. In the 2021–22 water year rainfall was above average across most of the Murray-Darling Basin, and very much above average across much of New South Wales and southeast Queensland. Rainfall across much of the Victorian southern ranges, the South Australian Riverland and the lower lakes was around average. A small area in southeast South Australia recorded below average rainfall.

River Murray system inflows were about 10,870 GL (not including releases from Snowy Hydro, inter-valley trade deliveries, managed environmental deliveries from tributaries and inflows to the Menindee Lakes). This was about double the inflow of the previous year and about 3,550 GL more than the long-term median inflow. MDBA active storage on 1 June 2021 was 4,529 GL, compared with the long-term average for that time of year of 5,089 GL. Active storage increased over winter and spring, reaching around 8,150 GL by the end of November 2021. For the rest of the water year it ranged between around 7,700 GL and 8,200 GL, well above the long-term average. At the end of May 2022, MDBA active storage was 8,019 GL.

For the Murray-Darling Basin as a whole, the volume of water in storage on 25 May 2022 was around 90% of capacity. This compares with 58% for the same time last year.



Figure 10: River Murray System monthly inflows: 2021–22, 2020–2021, 2019–20, 10-year average, long-term average Source: River Murray weekly report, 1 June 2022.

#### The MDBA oversees asset activities

Measure 3.1 is 'The MDBA has coordinated and overseen the asset activities as agreed and approved by the Ministerial Council in the Annual Work Plan'. Performance is endorsed by the River Murray Operations Committee.

The 2021-22 result is assessed as 'met'. The majority of asset activities were delivered, and progress was endorsed by River Murray Operations Committee.

Each year the asset activities are agreed and approved by the Ministerial Council and set out in the Annual Work Plan. Assessment and reporting continue throughout the year so that any issues can be dealt with.

Coordinating and overseeing the asset activities in the Annual Work Plan demonstrates that:

- work is delivered efficiently and is integrated with operational requirements
- work delivered meets the requirements of the joint venture partners and the Basin Plan
- assets remain able to deliver their required level of service
- the MDBA protects the interests of the partner governments.

In 2020-21 high river flows, as well as COVIDrelated restrictions, presented some challenges in making site inspections and starting infrastructure works. However, overall the assets program has delivered the majority of its planned activities. There is no evidence of an asset and the state constructing authorities not meeting a service level requirement in delivering water allocations and providing navigation and fish passage. The assets are well maintained and are not deteriorating faster than expected.

Of the agreed deliverables for 2021–22, 65% have been completed or are on track (see Figure 11). Of the remaining 35% of deliverables, the majority had minor delays. Only 3 deliverables had significant delays.

To enhance the program, the MDBA led and commenced the major revision of the River Murray Operations (RMO) Strategic Asset Management Plan in 2021-22. It is due to be completed and submitted for approval in 2022-23. This revision incorporates improved clarity in line of sight from corporate objectives to level of service, risk-based prioritisation of work activities and updated asset management strategies. This was done with the involvement of the state constructing authorities. Further work is required in 2022-23 to complete this project.



Figure 11: Performance against agreed 2021-22 Annual Work Plan deliverables for assets program

The MDBA also led the preparation of the RMO 2022-23 budget and work plan, working closely with the state constructing authorities to challenge the prudence, efficiency and deliverability of the budget activities. A risk-based prioritisation and deliverability assessment methods were used to justify the river management budget.

Two other measures relate to asset management.

Measure 3.2 is 'Number of adverse rulings from jurisdictional dam safety regulators'. The 2021–22 target was zero.

The MDBA oversees the RMO asset program, which is required to manage dam safety in accordance with state dam safety legislation or, if that does not exist, the Australian National Committee on Large Dams guidelines. Where dam safety is not managed in accordance with appropriate dam safety legislation and/or does not comply with best practice, an adverse ruling will be issued from jurisdictional dam safety regulators.

During 2021–22, following an audit by Dams Safety NSW of the dam safety management system for Yarrawonga Weir, a number of non-conformances and recommendations were issued. The audit was conducted against requirements of recently introduced NSW dam safety legislation. The responsible state constructing authority addressed most of these by the end of June 2022. The rest are scheduled to be complete by the end of October 2022. MDBA is confident that the safety of the dams is being appropriately managed.

Measure 3.3 is 'Number of unscheduled major outages of assets'. The 2021–22 target was zero.

Unscheduled major outages of assets could impact on the ability to deliver water as required under the agreement and the Basin Plan. Unscheduled outages are reported in the annual IRORG report. Any outage with exceptional impacts is reported at the time through the specified channels and is also reported by IRORG.

In 2021-22 no major outages were reported.

# The MDBA has obligations under the objectives and outcomes

Measures 3.4 and 3.5 are that the MDBA has fulfilled its efficiency and effectiveness related obligations under the Objectives and Outcomes as independently assessed.

Due to the complexities of gathering information, the performance assessments outlined here are lagged measures and focus on the June 2020 to May 2021 water year.

The 2020-21 result is assessed as 'met'. The review of 2020-21 river operations by the Independent River Operations Review Group (IRORG) concluded that the MDBA had generally complied with the range of provisions in the Objectives and Outcomes document:

- The general objectives for water storage and delivery accounting, RMO assets, people and communities, and environment were all achieved in 2020-21.
- A number of the intended outcomes of the communications and information management category were not fully achieved, and IRORG has therefore assigned a qualified achievement rating to this general objective for 2020-21.
- 98% of the specific outcomes and objectives were fully achieved. The one area of qualified achievement related to the failure to provide timely advice that the end of May target level in Lake Victoria would not be achieved.

IRORG's overall assessment is that the MDBA performed well throughout the water year. All jurisdictions endorsed this position.

#### Performance on KPI 4

KPI 4 measures the following key activity:

• Maintain and improve the health of the River Murray system (and the Basin where relevant) in accordance with the Murray–Darling Basin Agreement and associated agreements.

The table below summarises performance against targets for the measures in KPI 4.

Table 6: Performance against targets for Goal 2, KPI 4

КРІ	Measure	2021-22 Target	Result
<b>KPI 4</b> : Maintain and improve the health of the River Murray System (and the Basin where relevant) in accordance with Murray-Darling Basin Agreement and associated agreements	4.1 Percentage of report cards with maintained or improved environmental health for 7 key sites of the River Murray system	70%	Not met
	4.2 Evidence that key site report cards were used in the annual planning for the coordinated delivery of water for the environment to maintain and improve the health of the River Murray system	Report cards used by Southern Connected Basin Environment Watering Committee for annual reporting	Met
4.3 Percentage of Basin Salinity Management (BSM) 2030 Strategy salinity target in Schedule B of the Murray-Darling Basin Agreement achieved		100%	Met
	4.4 Percentage of BSM 2030 biennial audit findings that are progressed	Not applicable	Not applicable
	4.5 Timely monitoring and reporting on water quality in the River Murray system to aid in decision making	100% monthly reports sent and/or published	Met

# Assessing the environmental health of the Living Murray icon sites

Measure 4.1 is 'Percentage of report cards with maintained or improved environmental health for 7 key sites of the River Murray system'. The 2021-22 target was '70%'.

The 2021–22 result was 'not met'. This reflects the impacts of hot and dry conditions across the southern Murray–Darling Basin in recent years.

#### The Living Murray initiative

The 7 key sites referred to in measure 4.1 are the icon sites of the Living Murray initiative.

The Living Murray initiative is a partnership between the Australian Government and Basin state and territory governments. It aims to improve the environmental health of significant forests, wetlands and lakes along the River Murray as part of helping to deliver the Basin Plan objectives and outcomes. The initiative is managed by the MDBA.

The icon sites are a collection of locations along the River Murray chosen for their high ecological value and cultural significance. Each site is regionally and nationally significant to First Nations and other communities, and most are recognised internationally under the Ramsar Convention, an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. The Living Murray icon sites are therefore important indicator sites that provide information about the health of the River Murray system. More information about the icon sites is available on the MDBA website.

To support the environmental health of the River Murray system in accordance with the Murray-Darling Basin Agreement and associated agreements, the Living Murray activities focus on:

- coordinating, planning and delivering water for the environment
- monitoring and tracking the environmental health of key indicator/icon sites through time
- engagement and partnerships with local community and Traditional Owners.

Working together with regional communities is a key foundation for the Living Murray activities. This includes over a decade of supporting First Nations participation in water management and planning through the Living Murray Indigenous Partnerships Program.

In conjunction with other environmental water holders, the Living Murray publishes an annual booklet of case studies on the MDBA website to highlight the partnerships at work with First Nations peoples to achieve shared environmental and cultural benefits.

#### The icon site report cards

Each year the MDBA monitors and reports on the health of the icon sites using a report card system.

Site report cards contain condition grades that are derived from approximately 100 scientific monitoring reports each year. This includes condition monitoring to assess site health, and intervention monitoring to inform the real-time management of water for the environment and to measure ecological responses to watering. The projects also monitor emerging risks, such as the potential for poor water quality.

Progress is qualitatively assessed by using the monitoring reports to determine whether each site's ecological objective has been met, not met or partially met each year. There are between eight and 12 environmental objectives per site that cover fish, birds, vegetation and other key fauna. The percentage of objectives met is then used to calculate an overall grade for the site.

Measure 4.1 concerns the percentage of report cards with maintained or improved environmental health for 7 key sites. The measure is calculated by comparing the current year's overall grade for a site to the previous year's grade. The health of the site is considered:

- improved, if it moves to a higher grade
- maintained, if an A ('excellent') or B ('good') grade stays the same
- declining, if an A or B grade falls, or if a C ('fair') or D ('needs attention') grade stays the same.

The 2021-22 target for measure 4.1 was that 70% of report cards show maintained or improved environmental health for the 7 key sites.



#### Grades

Α	Excellent	Most (75-100%) of ecological objectives have been met
В	Good	More than half (50–74%) of ecological objectives have been met
С	Fair	Fewer than half (25-49%) of ecological objectives have been met
D	Needs attention	Few (0-24%) of ecological objectives have been met
-	Data not available	-

• Condition grade is based on how well the sites are tracking against ecological objectives for birds, fish and vegetation at each site.

• Shape indicates how condition compares to the previous year. For example, a downward arrow means fewer objectives were met compared to the previous year, and a box shape means condition was maintained.

#### Figure 12: Icon site report card grades for 2020-2021

Performance against the 2021–22 target is based on 2020–21 monitoring results, as it takes time to assess and assemble the monitoring reports. The target of 70% reflects an outcome of 5 out of 7 icon sites maintaining or improving condition. This recognises that environmental water managers are working within a highly variable natural system. The annual report cards are published on the MDBA website.

The 2021-22 target for measure 4.1 was not met. The 2020-21 results show that 2 sites maintained a 'good' rating. The other 5 sites were classified as declining: one site fell from 'excellent' to 'good'; one site fell from 'good' to 'fair'; 2 sites stayed on 'fair'; and one site stayed on 'needs attention' (see Figure 12). This result reflects the impacts of hot and dry conditions across the southern Murray–Darling Basin between 2017 and 2020. Following three hot, dry years, 2020–21 saw a return to slightly cooler and more moderate conditions. However, rainfall was still below average for much of the Murray, especially in South Australia. Inflows to the River Murray were in the driest 30% of years, with much of the landscape in the lower Murray remaining in a drought-stressed state.

These conditions placed stress on the icon sites and resulted in less water for the environment being available to help meet ecological objectives.

		Barmah- Millewa Forest	Gunbower Forest	Koondrook- Perricoota Forest	Hattah Lakes	Lindsay- Mulcra- Wallpolla Islands	Chowilla	Lower Lakes Coorong Murray Mouth
			9	Ø	9	9	Ø	
Ğ	2020-21	В	в 🤌	D	в 🤌	c 🤌		
×	2019-20	В	в 🤌	D	А	В	с 🤌	
×.	2018-19	В	А	D	в 🤌	В	В	
×.	2017-18	А	В	D	а 🤌		в 🤌	
≋	2016-17	А	в 🤌		а 🤌		в 🤌	В
×.	2015-16	В	в 🤌	D 🤌	а 🤌	в 🤌	с 🤌	
×	2014-15	В	в 🤌	D	а 🤌	- 🧐		В
œ	2013-14			D				
Ğ	2012-13	С		D				В
<b>C</b>	2011-12			D				
≋	2010-11	В		D			В	D
×	2009-10	С		D	D	D		D
☆	2008-09	D		D	D	D		D
×.	2007-08	D	D	D	D	D	-	

#### Grades

Α	Excellent	Most (75-100%) of ecological objectives have been met			
В	Good	More than half (50-74%) of ecological objectives have been met			
С	Fair	Fewer than half (25-49%) of ecological objectives have been met			
D	Needs attention	Few (0-24%) of ecological objectives have been met			
-	Data not available	-			
<ul> <li>8-17 ecological objectives per site</li> <li>Bird, fish and vegetation objectives</li> <li>80-100 monitoring reports each year</li> <li>Sites with environmental works/years where works used</li> <li>Very wet Wet Kore Moderate</li> </ul>					

14 years of data

Figure 13: Icon site conditions over time

#### Use of icon site report cards in planning

Measure 4.2 is 'Evidence that key site report cards were used in the annual planning for the coordinated delivery of water for the environment to maintain and improve the health of the River Murray system'.

The 2021–22 result is assessed as 'met'. Icon site report cards were used in the Southern Connected Basin Environmental Watering Committee (SCBEWC) planning. The SCBEWC is the group responsible for coordinating delivery of water for the environment in the southern Basin to maximise environmental outcomes and give effect to the Basin Plan. More information about the SCBEWC is on the MDBA website.

This measure refers to evidence that icon site report cards were used in the annual planning for the coordinated delivery of water for the environment to maintain and improve the health of the River Murray system. To maintain and improve river health under a highly variable natural system, it is important to employ adaptive management. Monitoring allows the MDBA and the Basin states to learn and adapt. To do this, monitoring results must connect with the annual planning cycle for water for the environment.

At the River Murray system scale, monitoring data from around 100 reports per year is used to determine the annual performance against objectives for each site and ecological theme. This informs the prioritisation of water for the environment demands across the River Murray system for the coming year via the SCBEWC's annual planning process.

Asset report card information for 2020–21, as well as emerging monitoring findings for 2021–22, were presented to the SCBEWC annual planning forum on 4 May 2022 and made available as reference material.

Condition of sites (as indicated by asset report card scores), and their trends over time were considered alongside emerging monitoring findings as SCBEWC began prioritising where water for the environment would be delivered and coordinated for the coming year (2022–23).

The SCBEWC Annual Report provides an overview of the significant achievements made in delivering water for the environment each water year. The report is provided to the Ministerial Council for noting by 30 December each year and is published on the MDBA website.

#### The BSM2030 salinity target is achieved

Measure 4.3 is 'Percentage of BSM2030 salinity target in Schedule B of the Murray–Darling Basin Agreement achieved'. The target for 2020–21 was '100%'.

The 2020-21 result is assessed as 'met'. 95% of the time simulated average daily salinity at Morgan in South Australia was 779 EC. The 2021-22 result will be assessed in November 2022.

Basin salinity management 2030 (BSM2030) is a strategy for managing salinity in the Basin, agreed in 2015. Measure 4.3 is the percentage of the BSM2030 salinity targets described in Schedule B of the Murray–Darling Basin Agreement that were achieved. The requirement of the BSM2030 strategy is to achieve the salinity targets on an annual basis. The BSM2030 strategy's focus is to continue to ensure salinity levels in the shared water resources are appropriate to protect economic, environmental, cultural and social values. When the elements of the strategy are implemented and Murray–Darling Basin Agreement obligations are met, it contributes significantly to maintaining and improving the health of the River Murray system.

The impacts of any works and measures and development activity undertaken by Basin governments on river salinity are assessed using computer models of the river system, recorded in a register and published annually. In this process, the achievement of the salinity target in Schedule B of the Murray–Darling Basin Agreement is assessed, reported annually and reviewed by the Independent Audit Group for Salinity every two years.

The Basin salinity target is to maintain the average daily salinity at Morgan at a simulated level of less than 800 electrical conductivity (EC) for at least 95% of the time. This is modelled over the benchmark period (1975-2000) under the current land and water management regime. The benchmark period provides a mechanism for consistently assessing river salinity outcomes over a climatic sequence that includes both wet and dry periods.

This is the 11th year in a row that the modelled river salinity at Morgan has been below 800 EC for 95% of the time (see Figure 14). This is a result of implementing consecutive salinity management strategies by the MDBA and Basin governments since 1988.

The operation of salt interception schemes contributed to achieving the Morgan salinity target by diverting approximately 374,810 tonnes of salt away from the River Murray and nearby landscapes in 2021–22.



Figure 14: Modelled 95 percentile salinity over the 1975-2000 benchmark period at Morgan in South Australia due to the implementation of salinity management programs from 1988 to 2021 (excluding the salinity benefits from the Basin Plan implementation and the Living Murray initiative)

#### Case study: salinity registers

The salinity registers are a critical aspect of the BSM2030 Strategy and are an effective environmental accountability framework that considers economic impacts as well. The registers provide the primary record of jurisdictional accountability for actions that affect river salinity.

The registers are an accounting tool that records the debit and credit balance of accountable actions that significantly affect river salinity at Morgan in South Australia. This accounting system provides a transparent basis for making decisions on Basin-wide trade-offs on salinity management actions and investments in joint works and measures.

Actions that reduce river salinity are recorded as credits, while actions likely to increase river salinity are recorded as debits. Actions such as constructing salt interception schemes and improvements in irrigation practices can generate a credit. Actions such as irrigation development may generate a debit because in some areas they may lead to increased salt loads to the River Murray. In addition, actions such as permanent water transfers in or out of an irrigation area may result in either a credit or a debit. State and territory governments report annually to the MDBA, providing new or updated information on accountable actions.

It is the MDBA's responsibility to collate and analyse this information and update the registers each year. This enables changes in river salinity impacts to be tracked over time. It also provides estimates of the economic costs and benefits arising from these salinity effects. The updated salinity registers are reported to Ministerial Council and are published every two years.

The MDBA reported to Ministerial Council that the states of New South Wales, Victoria and South Australia maintained a net credit status in the salinity registers, as required under the Schedule B of the Murray-Darling Basin Agreement, for 2020–21.

#### Progress on BSM2030 audit findings

Measure 4.4 is 'Percentage of BSM2030 biennial audit findings that are progressed'. There was no target in 2021–22. The target is 100% in 2024–25.

The BSM2030 strategy implementation, including the MDBA and contracting governments' performance, is audited every two years (in the years the BSM2030 comprehensive reporting is carried out) by the Independent Audit Group for Salinity. Their report is presented to the Authority and the Ministerial Council. The contracting governments advise the MDBA quarterly via the Basin Salinity Management Advisory Panel, and this guides the BSM2030 implementation.

The biennial audit tracks the progress of BSM2030 implementation. Through these audits any risks to strategy implementation and possible implications on river salinity management are identified. The progress of recommendations of the biennial audits ensures that the salinity risks are managed to maintain or improve the health of the River Murray system.

Some audit recommendations are short term and others are long term. For example, the report of the 2017-19 audit recommended that a range of knowledge gaps, such as climate change impacts, be explored in the lead-up to the BSM2030 strategic review in 2026. There is an expectation that this work will be undertaken before 2026, and there is no requirement to complete this work in the twoyear period. Also, some of the recommendations only apply to the states, whereas others require the states to complete some work before the MDBA can complete the recommendation.

The 2019-21 audit made a further eight recommendations aimed at improving basin salinity management. Of the earlier recommendations from the 2017-19 audit, the auditors assessed three as complete, five that were either underway or ongoing, and one that required further attention. The 2019-21 biennial audit report (December 2021) is published on the MDBA website. The MDBA will present progress on the audit recommendations to the next audit to be held in November 2023.

# The MDBA reports on water quality in the River Murray system

Measure 4.5 is 'Timely monitoring and reporting on water quality in the River Murray system to aid in decision-making'. The 2021-22 target was '100% of monthly reports sent and/or published'.

The 2021–22 result is assessed as 'met'. 100% of Basin Condition, Basin in Brief reports and Water Quality Threats Map updates were prepared, with the Basin in Brief reports and Water Quality Threats Map updates being published on the MDBA website.

To demonstrate that the health of the River Murray system is being maintained and improved in accordance with the Murray-Darling Basin Agreement and associated agreements, the joint programs focus on measuring, monitoring and assessing river health outcomes.

The water quality monitoring carried out under the River Murray Water Quality (RMWQ) program provides a measure of the status of water quality of the River Murray system and assists the Water Quality Advisory Panel (WQAP) and the MDBA in their decision-making to maintain or improve water quality.

The legacy impacts from the 2019–20 Upper Murray bushfires presented additional challenges for sustaining water quality in Lake Hume and immediately downstream. This led to water with very low dissolved oxygen levels being released from the lake in February 2021, which impacted aquatic species and the quality of potable water being supplied to Albury City.

In 2021–22 the MDBA continued with coordinated water quality monitoring to adaptively manage Lake Hume releases to maintain good water quality. This included coordinated stakeholder engagement with state agencies and potable water suppliers for the cities of Albury and Wodonga. The MDBA facilitated an evaluation workshop in June 2022 with key stakeholders and water quality experts to reflect on recent water quality monitoring and management in Lake Hume and to develop approaches for future management.

In 2021–22 the MDBA participated in an incident coordination group led by New South Wales to respond to the elevated risk of hypoxic blackwater from widespread flooding across New South Wales and specifically the Menindee Lakes and lower Darling River.

The fortnightly water quality reports have evolved into monthly Basin Condition reporting and Basin in Brief updates. The target of 100% was met, with Basin in Brief updates published on the MDBA website every month during 2021–22. While each state government also publishes water quality information for their jurisdiction, this is the only whole-of-Basin update that is available.

The MDBA also publishes a water quality threats map, which is a qualitative risk matrix that is reviewed regularly or updated as conditions change. The map is a public communications tool providing information about ongoing and emerging water quality risks. The map and more information on managing water quality is available on the MDBA website.

These updates provide information about ongoing and emerging water quality risks to the community, river operators and other agencies to aid their decision-making and communication and enable coordination across the Basin. For example, this information has been used by environmental water holders to work with river operators to target environmental water delivery to meet multiple outcomes. In addition, this information has also been used to brief the MDBA and other relevant agencies on specific incidents as part of the MDBA's Basin Condition Tracking and Emergency Response Group. The River Murray Water Quality Monitoring Program (RMWQMP) continued to collect data from state contracting governments (South Australia, Victoria and New South Wales) in the southern Basin. This data directly informs decision-making by river operators/managers. It is provided on request to researchers, scientists and other relevant users.

Other water quality projects progressed or completed under the RMWQ program in 2021-22 include:

- RMWQMP water quality data trends analysis
   2021 La Trobe University
- flow and stratification based algal bloom prediction model for the Murray River – University of Technology Sydney
- Synthesis of blue green algae bloom knowledge and trends in the Murray–Darling Basin.

During the year, the Water Quality Advisory Panel continued to meet quarterly, and when required advice was provided to the River Murray Operations Committee or Basin Officials Committee Alternates.

### Goal 3 Improve transparency and confidence in the Basin Plan, River Murray operations and the MDBA

#### Role of the MDBA

The MDBA improves transparency and confidence in the Basin Plan, River Murray operations and the MDBA by:

- making information accessible, timely
   and relevant
- being proactive and responsive to the interests and needs of stakeholders
- improving partnerships and relationship with Basin governments, industry, interest groups and communities.

#### **Expected** impact

- Stakeholders understand Basin water management
- Stakeholders are aware of water management and reform at the Basin scale
- The MDBA has a deep understanding of the social, economic, cultural, hydrological and ecological conditions of the Murray–Darling Basin
- The MDBA collaborates and cooperates with external partners to generate data and knowledge which is then managed appropriately
- External stakeholders are accessing and using the MDBA's published data and analysis

#### 2021-22 key activities

- Use media, engagement and communication to improve stakeholder awareness and understanding of the Basin Plan, River Murray operations and the MDBA's role
- Enhance the MDBA's data management process and practices
- Collaborate and cooperate with Basin governments, research institutions and other external entities to collect data and share knowledge

Source: Murray-Darling Basin Authority Corporate Plan 2021-22

#### Performance and analysis

Goal 3 has 2 key performance indicators (KPIs):

#### KPI 5: Stakeholders are aware of and understand the Basin Plan, River Murray operations and the MDBA's role

**KPI 6:** Collaborate and cooperate with Basin governments and other external stakeholders to share knowledge, collect and integrate data and manage it appropriately

Improved transparency and confidence in the Basin Plan, River Murray operations and the MDBA is critical to securing the ongoing water reform that will deliver a healthy, working Basin for future generations.

The MDBA's regional offices have increased the MDBA's capacity to engage effectively with Basin communities. An evaluation of the Regional Engagement Officers program during the year showed it has been highly effective at providing two-way information sharing opportunities. The MDBA's continuing support for the Basin Community Committee ensures representation from communities across the Basin.

The MDBA's greater regional footprint is enhancing its ability to engage face-to-face with Basin communities and develop constructive relationships built on trust.

In 2020 the MDBA implemented a 3-tiered approach to guide all engagement, communications and media activities. It was informed by research in the same year about stakeholder needs, knowledge, attitudes and perceptions, which provided a solid evidence base to develop the communications and engagement approach.

#### Performance on KPI 5

KPI 5 measures the following key activity:

• Use media, engagement and communication to improve stakeholder awareness and understanding of the Basin Plan, River Murray operations and the MDBA's role

The table below summarises performance against targets for the measures in KPI 5.

Table 7: Performance against targets for Goal 3, KPI 5

КРІ	Measure	2020-21 Target	Result
<b>KPI 5</b> : Stakeholders are aware of and understand the Basin Plan, River Murray operations and the MDBA's role	5.1 Awareness and understanding of the Basin Plan and River Murray operations based on MDBA stakeholder and/or market research (conducted every 3 years)	Not applicable	Not applicable
	5.2 The MDBA delivers stakeholder engagement activities which improve stakeholder awareness and understanding of the Basin Plan, River Murray operations and the MDBA's role	Case study: River Murray transparency improvements project	Met

#### Stakeholders better understand the Basin Plan and River Murray operations

Measure 5.1 is 'Awareness and understanding of the Basin Plan and River Murray operations based on MDBA stakeholder and/or market research (conducted every 3 years)'. The 2021–22 target is 'not applicable', as market research is only completed once every 3 years and was not completed in this financial year.

The 2020 research study observed that 66% of Basin community members and 100% of water licence holders had heard of the Murray–Darling Basin Plan. However, awareness was slightly lower around River Murray operations and water management more broadly.

The MDBA is committed to leading a proactive and coordinated approach with water management agencies to reach and engage the diverse audiences of the Basin. This includes continuing to host an annual water conference 'River Reflections' within a Basin community (see the case study: 'River Reflections').

# Stakeholders better understand the MDBA's role

In 2018, 57% of survey respondents reported being aware of 4 key facts about the MDBA's role and involvement in the operation of the River Murray system.

In 2020, research participants were shown a list of organisations that deal with water in the Murray–Darling Basin and were asked which they were aware of.

65% of Basin community and 90% of water licence holders were aware of the MDBA. Awareness was higher for the MDBA than for any other organisation in the list.

Information about the MDBA's role continues to be highlighted in a wide range of the MDBA's communication channels, including the MDBA website. Specific communications aim to help improve stakeholder awareness and understanding of river operations and ensure best practice in transparency. The MDBA has:

- published 11 editions of the Flows in the River Murray System update, issued monthly, and all available on the MDBA website
- published the River Operations Weekly Report, which has had 10,884 unique viewers during 2020-21
- expanded the Water Management 101 series of resources with 2 extra topics – special accounting and seasonal irrigation trends and the Murray– Darling Basin Agreement
- increased the transparency of the Independent River Operations Review Group (IRORG) by publishing the IRORG Review of River Operations, annual report, and new website content
- developed and published 17 new pages of web content on unregulated flows, flood management, erosion of the Barmah Choke and flow contributions from the Darling as part of an updated River Murray website section. This section has had 111,886 unique visitors between July 2020 and May 2021
- published 26 articles on the MDBA Newsroom tagged 'River Operations'.

# Stakeholder awareness is improved through MDBA engagement activities

Measure 5.2 is 'The MDBA delivers stakeholder engagement activities which improve stakeholder awareness and understanding of the Basin Plan, River Murray operations and the MDBA's role'. The 2021-22 target is 'Case study: River Murray transparency improvements project'.

There is both quantitative and qualitative evidence that the MDBA's engagement activities have improved stakeholder awareness during 2021-22.

Regional engagement has continued to be a focus of the MDBA's work. Authority Chair Sir Angus Houston has led a program of listening tours in various locations around the Basin, bringing together key stakeholders and agency partners to look at, listen to and understand the diversity of issues and viewpoints that exist. Details are on the MDBA website.

The MDBA has continued to build and maintain relationships with First Nations and representative bodies – MLDRIN (Murray Lower Darling Rivers Indigenous Nations) and NBAN (Northern Basin Aboriginal Nations). This takes place through:

- liaising, educating, and coordinating with business areas to ensure that First Nations issues are considered in all aspects of the MDBA's work
- working with other government agencies to provide advice and coordination activities with First Nations organisations
- improving First Nations governance and water literacy.

During the COVID-19 pandemic, the growing sophistication of the MDBA's virtual engagements has attracted new audiences.

- MDBA webinars continue to give the community opportunities to learn more about water management in the Murray–Darling Basin and ask questions of the MDBA team. There have been more than 1500 webinar attendees and 127,374 unique visitors to the water management section of the MDBA website.
- The MDBA digital newsroom on the MDBA website features a wide range of easily accessible and timely community information on a range of water management topics. It has had nearly 61,000 total views, with over 26,000 unique viewers. Community members can also subscribe to the newsroom to receive regular updates.
- The MDBA has also worked with communities to set up 6 regional community forums providing a space for participants to have the opportunity to build their knowledge about the science of their region and the Basin, see the role of science in decision-making, and contribute to the MDBA science and monitoring program. These linkages are made possible by the MDBA's strong regional presence, with offices located in Adelaide, Canberra, Goondiwindi, Griffith, Mildura, Murray Bridge, Toowoomba and Wodonga.



The MDBA's website traffic (unique page views) increased by 3.23% compared with the previous period.

Similarly, the MDBA has been growing its social media presence so that it now has:

- 505 more LinkedIn followers (up 14% to 4,035)
- 1,832 more Facebook followers (up 21% to 10,758)
- 186 more Twitter followers (up 3% to 6,061).

Physical and virtual gatherings engage many stakeholders who would otherwise be unable to attend forums and conferences.

 The MDBA hosted the second River Reflections conference in Mildura, Victoria, from 1 to 2 June 2022. It provided a forum for the diverse communities and industries of the Murray-Darling Basin to come together and share innovations in water management, knowledge and lessons learned.

#### The MDBA has held stakeholder briefings and engaged extensively on capacity and deliverability issues across the southern Basin including:

- two comprehensive written email updates to stakeholders about the Capacity and Shortfall Program of work
- a virtual update to peak groups throughout the Basin
- relating to the Barmah-Millewa sediment options investigation, 9 online and 8 faceto-face presentations from October 2021 to March 2022. These sessions provided updates to First Nations, community and industry stakeholders in the Barmah-Millewa reach about sediment investigations to date and sought their feedback on the problem and possible solutions.

- The MDBA holds online Peak Groups Briefings in April, July and November on behalf of all Commonwealth water agencies. These briefings share updates, seek information from and test ideas with more than 30 peak groups representing Basin stakeholders. The forums also provide an opportunity for peak representatives to share what is important to them and ask questions about water management and reform.
- The MDBA continues to support international engagement activities that enhance the MDBA's access to the latest global research and practices, and it shares the MDBA's knowledge with international water agencies. During 2021–22 the MDBA noted a downturn in international engagement because of the impacts of COVID-19, particularly on travelling delegations. The MDBA remains committed to sharing knowledge with international agencies.

With the MDBA's 2020 stakeholder research results continuing to emphasise the need for foundational knowledge as a basis for further information, the MDBA has been working with younger Australians. This has included:

- continuing its partnership with Petaurus Education Group to deliver Basin-themed classroom workshops and lessons to 421 students and 142 teachers, as well as more than 50 hours of professional learning activities to equip staff with better knowledge and resources for teaching about the Basin
- initiating the pilot Basin Heroes education program to schools in 5 regional office locations. This program's delivery was postponed in 2021 due to COVID restrictions. It is being delivered across the 2022 calendar year. The program facilitates connections between schools and their communities and empowers students to develop research projects on local Basin issues. These projects will be published as lasting education resources for their school's use and will help to build understanding by students, their families and the wider communities.

The MDBA's 2020 research, alongside several important independent reviews into water management, has consistently shown that communities want transparent information that meets their needs, regardless of which agency the information comes from. The MDBA has led cross-government work to ensure that there is continuous improvement in transparency and community information.

This has been through the development of a cross-agency network for communications and engagement with professionals in water management – the 'Murray-Darling Basin Communications and Engagement Network'. This has been taking forward joint government work to specifically improve transparency in response to the Basin Officials Committee's priority to continuously improve transparency.

In addition, the MDBA takes an active role within the Murray–Darling Basin 'Water for the Environment' forum, which is taking forward joint government work to improve information specifically about water for the environment in the Murray–Darling Basin.

#### Performance on KPI 6

KPI 6 measures the following key activities:

- Collaborate and cooperate with research institutions and other external entities to collect data and share knowledge.
- Number of publicly available data sets and associated analysis.

The table below summarises performance against targets for the measures in KPI 6.

Table 8: Performance against targets for Goal 3, KPI 6

КРІ	Measure	2021-22 Target	Result
<b>KPI 6</b> : Collaborate and cooperate with Basin governments and other external stakeholders to share knowledge, collect and integrate data and manage it appropriately	6.1 Collaborate and cooperate with research institutions and other external entities to collect data and share knowledge	Case study: collaboration in science and data/knowledge sharing in the CSIRO Ecosystem Function Project	Met
	<ul><li>6.2 Number of publicly available:</li><li>a. data sets</li><li>b. data set associated analysis</li></ul>	a. > 10% increase b. > 25% increase	Met

## Science research programs to enhance our knowledge of the Basin

Measure 6.1 is 'Collaborate and cooperate with research institutions and other external entities to collect data and share knowledge'. The 2021-22 target is 'Case study: collaboration in science and data/knowledge sharing in the CSIRO Ecosystem Function Project'

The 2021-22 result is assessed as 'met'.

Science and knowledge are core to water resource planning and management in the Murray–Darling Basin. The Basin Plan was developed with the best available science, knowing that it would need to adapt and evolve as our knowledge of the Basin grew and we encountered unforeseen or unexpected challenges. Significant increases in investment in new science is enabling better research, knowledge, data and analysis to inform water policy. Over the past 12 months, significant efforts have been invested into Basin research. Three programs have been developed to lead Basin science on the pathway to the Basin Plan Review in 2026: the Integrated River Modelling Uplift; the Murray-Darling Water and Environment Research Program; and the Basin Condition Monitoring Program.

Importantly, these three programs have a strong focus on transparency. Community-facing information sharing is a key component. The Basin Condition Monitoring Program was designed in collaboration with the Regional Community Forums, and the other two programs include mechanisms to progressively share information with the community as they roll out.

Together, these programs will support current efforts to deliver a strengthened Basin Plan that is better able to adjust to a changing climate and is developed with and supported by the community.

#### Case study: Ecosystem Functions

Each year the MDBA will develop a case study to demonstrate the benefits of collaborating with one chosen research institution or other external entities.

At a minimum, the case study will include:

- a brief and high-level summary of the collaboration
- a summary of the key collaborators involved (include numbers where feasible)
- a summary of key outcomes (examples of any key outcomes delivered because of the collaboration)
- a summary of key benefits achieved through increased collaboration and/or collaboration (for example increased access to capability, access to new data/information, knowledge sharing, new innovations, leveraging opportunities)
- a summary of any key engagement activities (including events, workshops, seminars)
- any recommendations on how this collaboration will be furthered (if applicable).

The Department of Climate Change, Energy, the Environment and Water has invested \$3 million in a research project on ecosystem functions in the Murray–Darling Basin. The project is being undertaken by CSIRO in collaboration with the MDBA and the Commonwealth Environmental Water Office.

The 3-year research project aims to apply novel approaches to improve understanding of ecosystem functions, responses to flow and other stressors, and the connection to the health and condition of water-dependent ecosystems. A team of over 20 CSIRO researchers have been researching across 4 themes - hydrological connectivity; productivity; habitat provision and biological movement.

The research is drawing on CSIRO's scientific expertise and capacity across multiple disciplines and subject matters to deliver improved science and tools. This will inform decision-making, planning and management of water for the environment across the Basin. The CSIRO research team have leveraged recent advances in remotely sensed geospatial and biodiversity data collected across the Basin and applied innovative new data analysis and modelling techniques to provide a deeper understanding of ecosystem functions at a Basin scale. This type of research collaboration project is critical to improve the scientific evidence base that underpins management of water resources in the Murray-Darling Basin and maximise the environmental outcomes of the Basin Plan.

A key part of the research collaboration is engagement with water management, delivery and policy 'end users'. An initial user workshop was held in October 2021 to build a shared understanding of research objectives, questions and techniques/methods, and to seek feedback on potential application of the research and whether the intended project outputs best support user requirements. The workshop involved about 70 people across a range of Commonwealth and state agencies. The feedback provided has helped guide CSIRO to ensure that research outputs can be practically applied and are relevant to users. Examples of application of the research include:

- informing environmental water managers on watering actions and strategies that would enhance ecosystem functions outcomes, such as enhanced habitat for water-dependent biota or enhancing opportunities for biological movement/connectivity
- informing the 2026 review of the Basin Plan by improving the scientific evidence base that underpins the determination of an environmentally sustainable level of take.

The research project will be completed by the end of 2022. To maximise uptake of the science and share the new knowledge, a range of engagement activities are planned for the 2022-23 financial year. This includes additional user workshops for each of the research themes, project seminars, presentations at national/international conferences and development of factsheets and synthesis reports. Research will also be published in scientific literature. The collaboration is committed to making the data/information generated by the project publicly accessible and available via CSIRO and MDBA data portals.

The collaboration will be furthered through the DCCEEW funded Murray-Darling Water and Environment Research Program (MD-WERP). Research undertaken through MD-WERP by CSIRO is building on and extending research undertaken in the ecosystem functions project.

#### Collaborations build data and knowledge

The MDBA collaborates with the Basin states, research community and relevant government agencies on a range of projects that contribute data and knowledge.

For example, the Murray–Darling Water and Environment Research Program (MD-WERP) is funded by the Department of Climate Change, Energy, the Environment and Water (DCCEEW) and administered by the MDBA in collaboration with DCCEEW and the Commonwealth Environmental Water Office. Due to be completed in June 2025, it is designed to contribute to scientific knowledge of the Basin. This will help inform water and environment management decisions and improve outcomes for the Basin and communities.

Two research consortia, led by CSIRO and La Trobe University, have been established to deliver science and research through MD-WERP. The first annual MD-WERP research symposium was a recent highlight of collaboration between the MDBA, Commonwealth partners and the scientists of MD-WERP. This event bought together over 150 scientists, researchers and policy makers to better understand research undertaken to date and to learn about how the program is working to strengthen the evidence base for water and environment management decisions.

The MDBA has also established 6 Regional Community Forum groups to engage with community members on Basin science and to strengthen the capture and use of local knowledge. Members include a diverse cross-section of local communities with a knowledge of or interest in the environment, agriculture, climate or natural resource management. Participants have the opportunity to build their knowledge about the science of their region and the Basin, see the role of science in decision-making, and contribute to the MDBA science and monitoring program. In addition to those detailed above, 2021–22 key collaborations with research institutes, universities and policy institutes included:

- the University of Melbourne and the One Basin Cooperative Research Centre
- Watertrust Australia
- the University of New South Wales Centre for Ecosystem Science
- the Australian National University
- the University of Adelaide.

#### The MDBA strengthens partnerships with Basin First Nations

The MDBA engages with First Nations in the Basin through both formal and informal arrangements. Formal arrangements include attendance at MLDRIN and NBAN meetings. Core funding was provided for MLDRIN and NBAN, including funding for cultural flow officers and other fee-for-service activities. The MDBA also meets with representatives of individual Nations to discuss on-country issues.

There are also regular meetings of the Interdepartmental Committee on Aboriginal Engagement, which consists of Australian Government agencies as well as meetings with Aboriginal engagement teams of the Basin states. COVID-19 movement restrictions continued to affect engagement activities, though face-to-face engagement did increase over the course of the year. The focus is on building relationships and looking towards the 2026 Basin Plan review.

# The MDBA's data management framework meets business needs

The MDBA's activities and collaborations with external partners generate a significant amount of data and knowledge. This information is used to inform decision-making, so it is essential that it is stored and managed in a way that enables timely access and retrieval. The data services area liaises with MDBA business areas and committees to make sure their data and knowledge requirements are being met.

The MDBA uses an enterprise data management framework to manage the data and knowledge. It is based on the principles of the Data Management Body of Knowledge (DMBoK) and adapted to best fit the MDBA's needs. The framework includes analytical capabilities that support the MDBA's ability to deliver major projects, including the Basin Outlook, the Murray-Darling Water and Environment Research Program and the Basin Condition Monitoring Program.

Importantly, these capabilities supported MDBA staff throughout 2021–22 to engage in collaborative analytics and the sharing of analyses with jurisdictional partners. The capability also enables the MDBA to have access to information that allows it to develop strategies to deal with changing situations, such as climate conditions across the Basin.

In 2021–22 the data services area built on the data management framework with the development of a range of guidance materials for use by MDBA staff. These materials cover critical data management activities such as quality assessments, issue management and standards for developing business intelligence reports. The data services area also continued improving data management maturity via the development of data management improvement plans.

The data services area continued work with the MDBA's Enterprise Project Management Office to embed the strategic data governance function within the Program Board. This ensures that the MDBA's information and technology needs are considered as an essential part of organisational capability.

#### The MDBA publishes datasets

Measure 6.2 is 'Number of publicly available:

- a. a. data sets (2021-22 target: > 10% increase)
- b. data set associated analysis (2021–22 target: > 25% increase)

The 2021-22 result is assessed as 'met'.

The MDBA publishes a variety of datasets and analyses that contribute to knowledge of the Basin. One data.gov.au dataset, a range of spatial datasets from the MDBA's data holdings, 3 code repositories and 4 dashboards were published in 2021–22.

The MDBA has published one full dataset on data.gov.au:

• Murray-Darling Basin Fish and Macroinvertebrate Survey, updated to include data to 2021

In addition, the MDBA published several spatial datasets which streamlined access to and sharing of these data assets via contemporary GIS platforms and technologies.

The MDBA has published or significantly updated the following code-based analyses on GitHub:

- The Environmental Watering Requirements tool, used to evaluate environmental requirements for long-term watering plans. This tool has been developed in collaboration with NSW DPIE.
- Gauge Getter, a tool for extracting data from river gauges directly from various agencies. This tool supports the use of common data from the point of truth by MDBA and its partners.
- The Inundation History Tool, used to calculate inundation areas based on gauged flows. This tool supports the planning and evaluation of environmental watering events by calculating wetland inundation.

The MDBA has published several dashboards, including:

- a dashboard showing the environmental response to various salt interception schemes downstream of Lake Victoria
- an analysis of fish data from the Murray Darling Basin Fish Survey from 2005 to 2021
- a hydroclimate storylines dashboard
- a dashboard showing current conditions at Back Lake in Victoria to support environmental water delivery by the Commonwealth Environmental Water Office.

## Looking ahead to 2022-23

#### **Operating context**

Many elements of the Basin Plan have now been delivered – entitlements for water for the environment, limits on consumptive water use, enhanced water trade, and significant water quality and salinity projects. However, public scrutiny of the Plan and those involved with implementing it has intensified. Roles and responsibilities have been reassessed to separate functions and give more transparency. In August 2021, compliance responsibilities were transferred to the Inspector-General of Water Compliance, while the MDBA continues to do the independent monitoring and evaluation and core technical functions to implement the Basin Plan.

The MDBA now has one-third of its staff working in regional areas, which is helping to address the challenges of prioritisation, visibility and accountability. Policies supporting flexible working arrangements – in particular the MDBA's Working Away from the Office (WAFO) policy – have been refreshed to better support MDBA people during the COVID-19 pandemic, working from home during lockdowns, and now into the MDBA's future way of working.

The La Niña weather pattern is expected to continue into late 2022, resulting in above-average rainfall for most areas in the Murray–Darling Basin. Full water storages across the Basin are supporting full allocations for water users.

#### **Priorities**

Implementing the Basin Plan relies on collaboration among the 6 Basin governments as well as a range of stakeholders. Changing conditions can affect timeframes and put parts of the reforms at risk. Building community confidence continues to be a priority, as it underpins the overall success of the implementation.

As highlighted in our Basin Plan Report Card series 3 aspects of the Basin Plan are behind schedule and are priority areas:

- New South Wales needs to submit the outstanding New South Wales water resource plans (WRPs) so they can be assessed and accreditation recommendations can be made to the Australian Government water minister.
- Fully implementing the Sustainable Diversion Limit Adjustment Mechanism (SDLAM) requires southern Basin states to complete a series of projects by 2024 in return for an adjustment to the water recovery target by 605 GL. Some of the SDLAM projects are at risk of not being completed within the legislated timeframe of 2024. If they are not completed by then, the MDBA is required to conduct a SDLAM reconciliation.
- Delivery of 450 GL through water efficiency measures. This has always been an important part of the Basin Plan and the Australian Government has committed to fully recovering this water.

Other priorities for the next year include preparations for the 2025 Basin Plan Evaluation and the 2026 Basin Plan Review. Climate change and adaptation, and First Nations are key themes for the 2026 Basin Plan Review. In the context of a changing climate and socioeconomic changes, the MDBA is prioritising investment in science and knowledge to support good decision-making. Investments include:

- the Water and Environment Research Program a 4-year, \$20 million research investment focusing on the themes of climate adaptation, hydrology, environmental outcomes, and social, economic and cultural outcomes
- the Integrated River Modelling Uplift –

   a \$66 million program to modernise and integrate
   Murray–Darling Basin river models to enable
   more timely and effective water management
   decisions
- the Basin-wide economic, social and environmental condition monitoring program

   a \$7.5 million Australian Government funded program being delivered by the MDBA.

The Murray–Darling Basin Authority Corporate Plan 2022–23 has more information about priorities.



#### PATHWAY TO THE BASIN PLAN REVIEW 2026

Figure 15: Pathway to the Basin Plan Review 2026



# Part 3 Management and accountability

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# 03

### Governance

The Murray–Darling Basin Authority (the 7-member Authority) is established under the Water Act, which sets out how the water resources of the Murray–Darling Basin are to be managed. The 7-member Authority is supported by the Murray–Darling Basin Authority (the MDBA), an independent Australian Government agency.

Water in the Basin is managed in a cooperative arrangement between the Australian Government and the governments of the Basin states – New South Wales, Queensland, South Australia, Victoria and the Australian Capital Territory. The Basin Plan provides the framework to ensure that water is shared between all users in a sustainable way. The governance model reflects this through the various councils and committees that support the Australian Government water minister in their decision-making role (see Figure 16).



Figure 16: MDBA governance arrangements



Figure 17: Members of the Murray–Darling Basin Authority at Authority meeting in Mildura, 31 May 2022 (L to R: Stuart Bunn, Sir Angus Houston, Acting Chief Executive Andrew Reynolds, Jane Doolan, Rene Woods, Roseanne Healy, Susan Madden)

#### Australian Government water minister

The Murray-Darling Basin Authority reports to the water minister. The Hon Tanya Plibersek was sworn in as the Minister for the Environment and Water on 1 June 2022. Before this, the MDBA reported to the Minister for Resources, Water and Northern Australia, the Hon Keith Pitt. The water minister also chairs the Murray-Darling Ministerial Council and, in accordance with the Water Act, can direct the Authority on how it performs its functions.

#### The Authority

The Murray-Darling Basin Authority (the Authority) is made up of a part-time Chair, a full-time Chief Executive, and 5 part-time members, including an Indigenous member.

Members of the Authority are appointed for their skills and experience in areas including water resource management, governance, policy, the environment, community and Indigenous matters. The appointment process is set out in the Water Act and the 2008 Intergovernmental Agreement on Murray–Darling Basin Reform, and is managed by the department – during the reporting period, the Department of Agriculture, Water and the Environment (DAWE).

Authority members' performance is measured by the outcomes of the Basin Plan, with the Audit Committee providing additional assurance. The Authority takes advice from advisory committees established under the Water Act, including the Advisory Committee on Social, Economic and Environmental Science (ACSEES) and the Basin Community Committee (BCC). It also takes advice from the MDBA on Basin-wide strategy, policy and planning. It collaborates with, and takes advice from, the Commonwealth department with responsibility for water, the Commonwealth Environmental Water Holder (CEWH) and Basin jurisdictions. It receives advice from Basin communities, industry, environmental groups and other government agencies (including the Bureau of Meteorology and the Australian Competition and Consumer Commission). Regular briefings from these groups ensure the Authority's decision making is robust and well informed.

More information about the Authority and its functions [https://www.mdba.gov.au/about-us/ governance-water-management-murray-darlingbasin/authority] is published on the MDBA website, along with *Communiques* from each of its meetings.

As of 30 June 2022 Authority members were:

- Air Chief Marshal Sir Angus Houston AK, AFC (Ret'd) – Chair
- Professor Stuart Bunn member
- Dr Jane Doolan member
- Ms Roseanne Healy member
- Ms Susan Madden member
- Mr Rene Woods Indigenous member
- Mr Andrew McConville Chief Executive.

Ms Joanna Hewitt AO completed her 4-year term in May 2022.

Mr McConville was appointed Chief Executive on 19 June 2022.

#### Authority members



#### Air Chief Marshal Sir Angus Houston AK, AFC (Ret'd) is

Chancellor of the University of the Sunshine Coast and chairs many boards including the Authority. He was awarded the Knight of the Order of Australia in 2015 for outstanding

service to Australia. Sir Angus served for 41 years in the Australian Defence Force including holding the positions of Chief of the Australian Defence Force from 2005 to 2011 and Chief of the Air Force.



Professor Stuart Bunn is a Fellow of the Australian Academy of Science and a member of the International Planning Committee for the Sustainable Water Future Programme. From January 2007 to July 2022, he was Director of the Australian

Rivers Institute, and between 2008 and 2012 he was a National Water Commissioner. He has served as Chair of the Scientific Advisory Panel for the Lake Eyre Basin Ministerial Forum and the MDBA's Advisory Committee on Social, Economic and Environmental Sciences (ACSEES), on which he continues to play an observer role.



**Dr Jane Doolan** is a director of Southern Rural Water Corporation in Victoria, a founding member of the Water Policy Group, an adjunct professor at the University of Canberra as well as chairing several consultative and

advisory committees. Her career encompasses intergovernmental policy development and negotiations, particularly in relation to the management of the Murray–Darling Basin and the oversight of major water projects and programs. In March 2022, she completed a term as the Environment Commissioner with the Australian Productivity Commission.



Ms Roseanne Healy is

a managing director at Enterprise Corporation Pty Ltd and a board member of the Grains Research and Development Corporation. She is chair of Cashflow Manager Pty Ltd and Dairysafe, and a

non-executive director of Dairy Australia, Airborne Research Australia and GP Partners. She was a member of the National Water Grid Advisory Body until it completed its work in March 2022. Ms Healy has over 20 years experience in corporate management across the agriculture, food and wine, technology and infrastructure sectors.



**Ms Susan Madden** is Principal Economist with international consulting firm GHD. She is Chair of the Central West Local Land Services and sits on the Local Land Services Board of Chairs. Ms Madden has a background in family

farming and extensive experience working in agricultural and natural resource management roles in the public and private sectors. Her leadership capabilities and contributions have been recognised through a number of awards. She is a Fellow of the Peter Cullen Trust.



Mr Rene Woods is a Nari Nari man from Hay in south-west NSW. He has extensive experience in the management of Aboriginal culture, heritage and natural resources. He is a conservation officer with Nature Conservancy

Australia and has previously been Chair of the Murray Lower Darling Rivers Indigenous Nations and Vice-Chair of the Nari Tribal Council.



#### Mr Andrew McConville

joined the MDBA in June 2022 as Chief Executive. Prior to this, Mr McConville was Chief Executive of the Australian Petroleum Production and Exploration Association, a position he occupied since April 2019.

Before that, he worked for more than a decade with Syngenta, one of the world's leading agribusinesses. Earlier in his career, Mr McConville ran his own agribusiness public relations consultancy for almost 5 years and worked as Head of Corporate Affairs for Business at the National Australia Bank.



Outgoing member – Ms Joanna Hewitt AO has worked at senior levels in the Australian Public Service including Secretary of the Department of Agriculture, Fisheries and Forestry from 2004 to 2007 and Deputy Secretary in the Department

of Foreign Affairs and Trade. She was Commission Chair of the Australian Centre for International Agricultural Research (ACIAR) from 2011 to 2014 and has worked at the OECD and consulted internationally. Ms Hewitt's term on the Board ended on 28 May 2022.

#### Murray-Darling Basin Ministerial Council

The Murray–Darling Basin Authority is accountable to the Ministerial Council for matters under the Murray–Darling Basin Agreement. The Council develops and coordinates policy for the effective planning and sustainable use of the water, land and other environmental resources of the Basin. It may give directions to the Basin Officials Committee on its functions and powers, and it may seek the advice of the Basin Community Committee on these functions.

The Ministerial Council is made up of the Australian Government minister responsible for water and the ministers responsible for water from each Basin jurisdiction. As of 30 June 2022, members were:

- New South Wales the Hon Kevin Anderson MP
- Victoria the Hon Harriet Shing MP
- South Australia the Hon Dr Susan Close MP
- Queensland the Hon Glenn Butcher MP
- Australian Capital Territory Mr Shane Rattenbury MLA

The Australian Government member, the Hon Tanya Plibersek, was appointed on 1 August 2022.

The MDBA website has more details about the Ministerial Council [https://www.mdba.gov.au/publications/mdba-reports/murray-darling-basin-ministerial-council].

#### **Basin Officials Committee**

The Basin Officials Committee (BOC) is established under Part IV of the Murray–Darling Basin Agreement. It is the peak body of Basin government officials providing advice to decision-makers on all Murray–Daring Basin matters. The BOC facilitates cooperation and coordination between the Commonwealth, the Basin states and the MDBA in funding works and managing water and other natural resources. It is responsible for implementing the policy decisions of the Ministerial Council on matters including state water shares.



Figure 18: Structure of the Basin Officials Committee

The BOC consists of a senior official from each Basin jurisdiction. It is chaired by the Commonwealth member. The Authority's Chief Executive is an advisor to the BOC and, along with the Authority Chair, can attend and participate in BOC meetings but does not have a vote in meeting decisions.

The governance structure includes 4 standing committees and 3 time-bound committees (see Figure 18).

As of 30 June 2022 the 6 members were:

- Commonwealth Ms Lyn O'Connell (chair)
- New South Wales Mr Jim Bentley
- Victoria Ms Helen Vaughan
- South Australia Mr Ben Bruce
- Queensland Ms Linda Dobe
- Australian Capital Territory Mr Geoffrey Rutledge.

The MDBA website has more details about the Basin Officials Committee [https://www.mdba.gov.au/about-us/governance/basin-officials-committee] including *Communiques* from each of its meetings.

#### **Basin Community Committee**

The Basin Community Committee (BCC) was established under the Water Act to provide for a community perspective on water resource environmental, cultural and socioeconomic matters in the Basin. It provides advice to the Authority and Ministerial Council and engages with the BOC, the department and Authority advisory committees.

Members come from all over the Basin (see Figure 19) and are selected for their expertise or interest in relevant areas. The appointment process begins with a call for expressions of interest, a shortlist of candidates is recommended to the Ministerial Council, who nominates candidates, then the Authority makes the final decision as to who to appoint. The 3rd cohort of the BCC completed their term in late 2021 and the 4th cohort commenced on 1 February 2022. There are currently 15 members on the BCC, with 4 First Nations members, including the Chair.

On 30 June 2022 members of the BCC and their locations were:

- Mr Phil Duncan (Chair) Gwydir
- Mr Sam Coulton Border Rivers
- Mr Edward Fessey Barwon–Darling
- Ms Rachel Kelly mid-Murray and Murrumbidgee
- Ms Susan Madden (Authority member) Dubbo
- Mr Neil Martinson Riverland
- Mrs Samantha O'Toole Lower Balonne
- Mrs Sue Rudd Sunraysia
- Mr Adrian Weston Goulburn-Broken
- Mr Feli McHughes Barwon-Darling
- Ms Alice Williams Macquarie-Castlereagh
- Mr Mike Gilby Sunraysia
- Mr Andrew Drysdale Condamine
- Mr Warren Jacobs Lower Murray
- Ms Emelia Sudholz Wimmera.

Mr David Thurley (Upper Murray Region), Ms Amy Fay (Goulburn-Murray) and Mrs Sandra Peckham (Bogan Region) were farewelled in December 2021.

The MDBA website has more details about the Basin Community Committee [https://www.mdba.gov.au/ about-us/governance-water-management-murraydarling-basin/basin-community-committee] including *Communiques* from its meetings.



Figure 19: Basin Community Committee members
## Advisory committees

Under s 203 of the Water Act the MDBA can establish advisory committees to assist it in performing its functions. There are currently 5 committees providing advice in specific areas:

- the Advisory Committee on Social, Economic and Environmental Sciences
- the Independent River Operations Review Group
- the River Murray Asset Advisory Panel
- the Salt Interception Technical Working Group
- the Advisory Group Hume-Yarrawonga Waterway Management.

Membership of these groups [https://www.mdba. gov.au/about-us/accountability-reporting/statutoryappointments-under-section-203-water-act-2007cth#amap] is published on the MDBA's website.

The Independent Assurance Committee (IAC), which provided external assurance on the MDBA's compliance role, ceased operation early in the reporting period as compliance is now the responsibility of the Inspector-General of Water Compliance.

# Advisory Committee on Social, Economic and Environmental Sciences

The Advisory Committee on Social, Economic and Environmental Sciences (ACSEES) reviews and advises on the science that informs Basin Plan implementation and the broader scientific context of the MDBA's work. This includes adaptation to future climates, environmental management, and the monitoring and evaluation of Basin health and Basin Plan outcomes. Fostering partnerships and the communication of Basin science within academic, community and industry networks are also important aspects of the committee's role.

Members have expertise in areas including fields of hydrology, ecology and natural resource management, climate sciences, economics, social and cultural values, and water governance and law.

ACSEES formally meets twice per year, with additional out-of-session engagement arranged as needed. Authority member Professor Stuart Bunn currently attends the formal ACSEES meetings as an observer.

The MDBA website has more details about the Advisory Committee on Social, Economic and Environmental Sciences [https://www.mdba.gov.au/ about-us/governance-water-management-murraydarling-basin/advisory-committee-social-economic].

## **Independent River Operations Review Group**

The Independent River Operations Review Group (IRORG) reviews the MDBA's performance in river operations and water sharing activities. This includes reviewing the outcomes of the MDBA's environmental water delivery actions, operation of the River Murray increased flows, operation of South Australia's storage right and the MDBA's compliance with BOC's river operations objectives and outcomes. The IRORG does an annual assessment of the MDBA's performance at the end of each water year.

The MDBA publishes these assessments and information about the Independent River Operations Review Group [https://www.mdba.gov.au/about-us/ governance-water-management-murray-darlingbasin/independent-river-operations-review-group] on its website.

## Organisational structure

The MDBA agency has 4 portfolios areas, led by the Chief Executive. The heads of each of the portfolios sit on the Executive Board.

The portfolios are:

- Basin Plan focuses on Basin Plan compliance, water accounting and the assessment of water resource plans. It includes the environmental monitoring and evaluation aspects of the Basin Plan and the Aboriginal Partnerships team.
- River Management works with state partners to lead the integration and delivery of environmental and operational water needs and manage river operations.
- Basin Strategy and Knowledge ensures best practice science is linked directly to Basin Plan policy. It also has a key role in enhancing collaborative relationships with Basin state governments and building trust with community partners.
- Business Services runs the business of the MDBA in areas including financial management, people and culture, parliamentary and secretarial services, and data and information management.

Figure 20 shows the organisational structure.

#### Office of the Chief Executive Andrew McConville



Figure 20: MDBA organisational structure as of 30 June 2022

## MDBA Executive Board

The Executive Board approves the MDBA's strategic direction and risk mitigation strategies for projects and programs for all investments.

## Andrew McConville

#### **Chief Executive**



Andrew was appointed to the MDBA as Chief Executive on 19 June 2022. Before that, he spent 3 years as Chief Executive Officer of the Australian Petroleum Production and Exploration Association, and more than 10 years in senior

corporate and communications positions with global agribusiness company Syngenta.

With a background in resource economics and financial management, Andrew has management experience across a range of domestic and international organisations and industries. He has considerable experience in developing strategic partnerships and building engagement with communities, governments and other stakeholders.

Andrew has a Bachelor of Economics (Agriculture) (Hons) from the University of New England, a Master of Science (Agricultural Economics) from the University of Oxford, and he has completed INSEAD's Finance for Executives course in Singapore. He is a member of the Australian Institute of Company Directors and the Public Relations Institute of Australia.

## **Andrew Reynolds**

#### **Executive Director, River Management**



Andrew joined the MDBA leadership team in 2013 and was acting Chief Executive between August 2021 and June 2022. He has more than 28 years of experience in the water industry, managing major water supply infrastructure.

Before joining the MDBA, Andrew held various roles with Goulburn-Murray Water. His work there included managing the headworks business responsible for 16 large dams and associated infrastructure, delivering several major dam safety upgrades, and leading the business's engineering and scientific resources.

Andrew has a Bachelor of Engineering (Agricultural) (Hons) from the University of Melbourne. He is the current past chairman of the Australian National Committee on Large Dams.

## **Tim Goodes**

## **Executive Director, Basin Plan**



Tim joined the MDBA leadership team on 15 June 2020. Before commencing in this role, Tim was the Deputy Chief Executive of the Department of Primary Industries and Regions in South Australia. He was responsible for

agriculture, food and wine, regional development, major program delivery and corporate services.

From 2009 to 2017 Tim was the Deputy Chief Executive of the Department of Environment, Water and Natural Resources in South Australia. In that role, he was responsible for the policy and strategy development of the department, including serving as the Basin Official for South Australia, overseeing the implementation of the Basin Plan and other major water projects. Tim came to natural resources management after 12 years in the Justice portfolio, in Courts and the Attorney-General's Department. This included time as the Sheriff of South Australia and 3 years as an executive director in the Department of the Premier and Cabinet.

Tim has a Bachelor of Social Administration and a Master of Public Policy and Administration.

## **Greg Manning**

## Executive Director, Basin Strategy and Knowledge



Greg joined the MDBA in December 2021. His 20 years of work in environmental and natural resource management includes international work on the Ramsar Convention and the South Pacific Regional Environment

Program. His experience encompasses environmental education, product stewardship, water, and environmental regulation, policy and reform.

Before joining the MDBA, Greg held senior executive positions including administering the Environmental Protection and Biodiversity Conservation Act.

Greg has a Bachelor of Science (Resource and Environmental Management), a Bachelor of Arts and a Graduate Diploma in Scientific Communication.

## **Annette Blyton**

#### **Executive Director, Business Services**



Annette joined the MDBA leadership team in 2017. She has worked in a broad range of corporate areas since starting her public service career in 1986. These areas include corporate and business management, farm surveys, data, social

research, finance, property and major projects and procurements.

From 2002 to 2012, Annette was Corporate Manager for the Australian Bureau of Agriculture and Resource Economics and Sciences. She then joined the Office of the Commonwealth Director of Public Prosecutions, where she worked as National Manager, People from 2012 to 2015. Annette moved to the Department of Agriculture and Water Resources in 2015, where she was responsible for the department's national property interests and a range of other national business functions.

## **Andrew Kremor**

## A/Executive Director, River Management 30 August 2021 to 26 June 2022



Andrew joined the MDBA leadership team in 2020. He is the Mildura Regional Manager and has more than 35 years of experience in managing major energy and water infrastructure and customer and stakeholder relations.

Dr Kremor has held executive management roles with Lower Murray Water, Santos, Alinta Energy, Babcock and Brown Infrastructure, Tarong Energy, Energex and SA Power Networks.

He has a PhD in engineering geology and an MBA, both from the University of Adelaide.



Figure 21: MDBA governance structure

# MDBA senior management boards and committees

The Executive Board is supported by boards and committees that advise on specific areas (see Figure 21).

## **Program Board**

The Program Board takes strategic direction from the Executive Board. It oversees the planning and implementation of approved MDBA programs and projects. The Program Board has taken over the work of the former Information Management and Technology Committee.

The Board's role is to oversee the implementation of approved portfolios, programs and projects. It regularly takes advice about external issues from the strategic policy group.

## **Capability Board**

The Capability Board plans, develops and deploys workforce capability. It informs the MDBA's enterprise Portfolio Management Office (ePMO) of strategic capability plans and advises of gaps and resource requirements.

The Board's role is to ensure the MDBA actively develops, monitors and strengthens its capabilities so that it can perform its functions.

## Senior management committees

There are 4 senior management committees:

- Audit Committee
- Employee Consultative Committee
- Health and Safety Committee
- Strengthening Connections Committee.

The work of these committees is included in other parts of this report and on the MDBA website.

# Corporate accountability

## Corporate governance practices

As a corporate Commonwealth entity, the MDBA uses practices that enable it to meet objectives while managing risk and using resources in an accountable way. The MDBA's planning, performance and reporting framework is supported by policies and guidelines and, where appropriate, external review.

The corporate plan is the key planning document. It sets out how the MDBA will achieve its purpose through goals that have measurable targets. The MDBA reports on its performance annually in the annual report. A performance framework helps individual staff and teams manage performance and contribute to organisational goals.

The MDBA's ability to achieve its goals and respond to change relies on building organisational capability. This is done through having strong values, good leadership, a dynamic and flexible workforce, and processes and systems that are regularly reviewed and improved.

The MDBA has identified the need for a strong regional presence and decentralised workforce as a priority. Other strategies include:

- looking for ways to streamline governance arrangements, such as using shared services
- building knowledge management and capability through improving systems and practices
- enhancing financial and non-financial performance
   measurement
- improving transparency through clear communications, partnerships and engagement.

## **Risk management**

The MDBA's approach to risk management is consistent with the Commonwealth Risk Management Policy and the International Standard for Risk Management (AS ISO 31000:2018) and is within best practice in practical management of risk.

## **Risk management framework and policy**

The MDBA's approach is set out in the MDBA Risk Management Framework and Policy, that is consistent with the Commonwealth Risk Management Policy and ISO 31000:2018.

The MDBA's risk appetite and tolerance for each major function is established by the framework.

The MDBA is more tolerant of risk where positive engagement with risk presents opportunities for innovation, improvement and building capability and capacity. It has a low appetite for fraud, work health and safety risks and compliance risk impact.

Risk management is integrated throughout MDBA planning and business systems. Each business unit in the organisation conducts environmental scanning as part of its forward project and program planning. This information informs the MDBA Enterprise Risk Management Plan.

Progress against the implementation of treatments is reported as required to the Ministerial Council, Basin Officials Committee and Audit Committee.

The MDBA has identified at the Enterprise level those risks that impact its objectives. These risks are identified from an analysis of the sources of risk for the MDBA and evaluated against all the MDBA's risk impact categories. This helps ensure risk has full visibility across and through the business of the agency at all levels and is effectively and consistently managed. The MDBA has also detailed activity-based sub-risks for key enterprise risks, to give greater clarity as required. This sits with an analysis of risk causes, controls and an assessment of the effectiveness of those controls.

Corresponding to the MDBA's aim to foster a positive risk culture to encourage and enable proactivity with risk through all levels of the organisation, this approach:

- allows the MDBA to make informed decisions for the prioritised allocation of resources for the management of risk and the achievement of objectives
- enables MDBA personnel to have a clear line of sight between their day-to-day work and managing risk and the achievement of the overall objectives of the MDBA.

Progress against the implementation of treatments is reported as required through the lines of assurance to the Ministerial Council, Basin Officials Committee and Audit Committee. The MDBA continually monitors and reviews risks, risk controls and treatments in accordance with the framework.

All new MDBA workers and contractors receive risk management induction and online training in ethics, fraud and conflicts of interest and sensitive water market information.

The MDBA approach to risk ensured it was well positioned to manage risk and meet the challenges presented by COVID-19, as well as identify and take advantages of opportunities to adapt to change and build organisational resilience.

## Comcover

Comcover provides the MDBA's insurance cover. Insurable risks are identified and assessed annually through Comcover's insurance renewal process. The MDBA is separately insured by Comcare for workers compensation for employees.

Comcover conducts a benchmarking survey every 2 years. The survey was conducted in the reporting period. The Risk Management Benchmarking Program is a key part of Comcover's risk management services though the Comcover risk maturity model.

The 5 areas of focus for the risk maturity model are:

- risk governance
- risk culture
- risk capability
- risk management framework and practices
- organisational resilience and agility.

The MDBA performed well against each of the areas of focus.

## Fraud control

As a matter of best practice, the MDBA's fraud control arrangements align with the Commonwealth Fraud Control Framework. This framework establishes systems and processes for preventing, detecting, monitoring, evaluating, reporting and responding to fraud. The MDBA regularly reviews its fraud prevention and control measures, which include fraud risk assessment and the fraud control plan.

In 2021–22, there were no reports of suspected fraud.

# Business continuity and ICT disaster recovery plans

The MDBA has 4 main documents that outline arrangements for recovering from a business disruption:

- MDBA Business Continuity Plan
- MDBA Business Impact Analysis
- River Murray System Emergency Action Plan
- ICT Disaster Recovery Plan.

Each plan is updated as required and at a minimum annually. The ICT disaster recovery arrangements are tested at desktop level.

As with the previous year, in 2021–22, the major business continuity event was the MDBA response to COVID-19. The response to COVID-19 presented the MDBA with a number of opportunities to stress test and continuously improve its response to disruptions caused by critical incidents and other business continuity events.

The MDBA demonstrated it was ahead of the curve in planning and preparedness for the pandemic across Australian Government entities.

In March 2022 the MDBA stood down from business continuity arrangements. That was on the basis that the business of the MDBA was not disrupted – notwithstanding ongoing operations to manage the impact of the pandemic.

## **Internal audit**

Internal audit services were provided by PwC in 2021-22. Internal audits were developed in consultation with senior management and their teams, having regard to the MDBA Enterprise Risk Management Plan and the MDBA Assurance Strategy.

The internal audit reports finalised during the year were:

- Management of External Public Commitments
- Enterprise Portfolio Management Office (ePMO) Implementation Review
- Hydrometric Network and Remote Sensing
   Program

The audit reports did not raise any major matters. The implementation of internal audit report recommendations is monitored by the Audit Committee.

## **Compliance reporting**

It is a requirement of the *Public Governance, Performance and Accountability Act 2013* (PGPA Act) that the MDBA reports significant non-compliance with finance law. Finance law includes:

- the PGPA Act
- the Public, Governance, Performance and Accountability Rule 2014 (PGPA Rule)
- instruments made under the PGPA Act (including Accountable Authority Instructions) and Appropriation Acts.

The compliance reporting process helps to identify and disclose instances of non-compliance with the PGPA framework, as a basis for continuous improvement.

There were no significant reportable breaches of the PGPA Act, the PGPA Rule or Australian Government policies in 2021-22.

## Audit committee

The MDBA's governance framework includes the Audit Committee, which provides independent advice and assurance. In keeping with s17(2) of the *Public Governance, Performance and Accountability Rule 2014* the Audit Committee reviews and gives advice on the MDBA's:

- financial reporting
- performance reporting
- system of risk oversight and management
- system of internal control.

Read the Audit Committee Charter on the MDBA's website at https://www.mdba.gov.au/sites/default/files/pubs/Audit-Committee-Charter-June-2021.pdf

Table 9 shows membership of the audit committee and other required details.

## Table 9: Audit Committee

Member name	Qualifications, knowledge, skills or experience (include formal and informal as relevant)	Number of meetings attended/ total number of meetings	Total annual remuneration (GST inc.)	Additional information
Mrs Jenny Morison FCA (Chair until December 2021) Independent member	Jenny has 38 years of experience in accounting, commerce and government. She was a National Board Member of the Chartered Accountants of Australia and New Zealand for 4 years. Jenny was the CFO of a public company and has held senior positions in the major international accounting firms. She founded Morison Consulting Pty Limited in 1996. Jenny originally specialised in implementation of Commonwealth financial reforms and then project managed significant process reform projects in the Department of Defence. She was awarded a Centenary medal in 2000 for services to accounting. For the last 16 years, Mrs Morison has become one of the most experienced independent members and Chair of Commonwealth audit and risk committees. Her current portfolio of agencies covers 45% of the total spend of the Australian Government.	3/5	\$11,550	
Ms Karen Hogan (Chair from January 2022) Independent member	Over the past 11 years, Karen has contributed as a member of several audit committees in various Australian Government agencies, including chairing the audit committees. Karen has extensive leadership experience in accounting, finance, corporate governance, risk, procurement, information technology and human resources. This experience encompasses both the public and private sectors and has been gained in such diverse areas as cultural institutions, regulation, manufacturing, energy, farming, tourism and fast-moving consumer products. Karen's areas of interest are improving financial literacy, the exploitation of technology and improving corporate governance in an efficient and effective manner.	5/5	\$18,672	

Member name	Qualifications, knowledge, skills or experience (include formal and informal as relevant)	Number of meetings attended/ total number of meetings	Total annual remuneration (GST inc.)	Additional information
Mr Andrew Cox Independent member	Andrew is a corporate governance professional with extensive experience in governance, audit and risk management. He works for the Institute of Internal Auditors- Australia as internal audit subject matter expert.	5/5	\$14,025	
	He has managed internal audit functions over his career including senior executive roles as National Manager of Internal Audit at Centrelink and Director of Risk Management Services for the Northern Territory Government, a whole-of- government internal audit bureau service. He previously worked with the federal government of the United Arab Emirates, where he was Chief Operating Officer and Project Director for a major capacity building project at the federal audit office.			
	Mr Cox has worked in Australia, Afghanistan, Bahrain, Bangladesh, Brunei, Fiji, France, Ghana, Indonesia, Iraq, Kuwait, Malaysia, the Netherlands, New Zealand, Papua New Guinea, Qatar, Saudi Arabia, Uganda, the UAE, the UK and the USA.			
	He has made presentations on governance and assurance in Australia and internationally and has taught internal auditing in Australia and other countries. He has authored numerous publications, white papers and fact sheets for the IIA-Australia.			
	He is an independent chair and member of a number of audit committees.			

Member name	Qualifications, knowledge, skills or experience (include formal and informal as relevant)	Number of meetings attended/ total number of meetings	Total annual remuneration (GST inc.)	Additional information
Mr Michael Parkinson Independent member	Michael Parkinson has more than 40 years experience in internal auditing and risk management. His experience is predominantly in government and covers all 3 levels. He has also provided technical advice and support in other countries within the Asia-Pacific region. Mr Parkinson has served at international level in professional bodies developing the profession and professional standards and guidance for internal auditors and information systems auditors. He is also recognised for his professional expertise in these fields. Michael served for 8 years on the Standards Australia/ Standards New Zealand joint technical committee on risk management standards. He was chair of this committee for 4 years, and during that time he was head of the Australian delegation to the corresponding ISO committee. He also served on the committee that developed the international standard on Compliance Management Systems. Michael continues to serve on a number of audit committees and, additionally, provides quality reviews and advice to internal audit and to risk management functions.	5/5	\$10,725	
Mr Stephen Sheehan Independent member	Stephen has 40 years of financial management experience. He has a Bachelor of Commerce degree. He was previously an Australian Public Service senior executive and held the positions of Chief Financial Officer at the Commonwealth Department of Immigration and Citizenship and the Department of Health and Ageing.	4/5	\$20,323	Mr Sheehan also chairs the Financial Statements Sub- Committee of the MDBA Audit Committee

## External scrutiny

The reporting requirements for corporate Commonwealth entities require the MDBA to report on significant developments in external scrutiny that occurred during the reporting period. This includes judicial decisions or decisions by administrative tribunals that have had or may have a significant effect on the MDBA's operations.

## Judicial or administrative tribunal decisions

There were no judicial decisions or decisions of administrative tribunals to report during 2021-22.

## **Auditor-General reports**

The MDBA's financial statements are audited by the Auditor-General.

The MDBA was mentioned in the Australian National Audit Office's report on the Management of staff leave in the Australian Public Service [https://www. anao.gov.au/work/performance-audit/managementstaff-leave-the-australian-public-service] published on 30 June 2022. The MDBA was one of 10 agencies randomly selected for audit to assess compliance with staff leave requirements. The MDBA was found to be compliant with the requirements.

## Parliamentary committee reports

Parliamentary committees tabled 4 reports relevant to the MDBA during 2021–22:

- 2 December 2021 Rural and Regional Affairs and Transport References Committee
   Water Legislation Amendment (Inspector-General of Water Compliance and Other Measures) Act
   2021 [https://www.aph.gov.au/Parliamentary\_ Business/Committees/Senate/Rural\_and\_Regional\_ Affairs\_and\_Transport/WaterLegislation/Report]
- 21 October 2021 Rural and Regional Affairs and Transport References Committee Federal Government's response to the drought, and the adequacy and appropriateness of policies and measures to support farmers, regional communities and the Australian economy [https://www.aph.gov.au/Parliamentary\_Business/ Committees/Senate/Rural\_and\_Regional\_Affairs\_ and\_Transport/DroughtResponse/Report]

- 30 September 2021 Multi-Jurisdictional Management and Execution of the Murray Darling Basin Plan – Select Committee
   Final report and report on Constitution Alteration (Water Resources) 2019 [https://www.aph.gov. au/Parliamentary\_Business/Committees/Senate/ Management\_and\_Execution\_of\_the\_Murray\_ Darling\_Basin\_Plan/MurrayDarlingBasinPlan/ Report]
- 30 September 2021 Rural and Regional Affairs and Transport References Committee Interim report: Water Legislation Amendment (Inspector-General of Water Compliance and Other Measures) Act 2021 [https://www.aph.gov. au/Parliamentary\_Business/Committees/Senate/ Rural\_and\_Regional\_Affairs\_and\_Transport/ WaterLegislation/Interim\_Report].

## **Commonwealth Ombudsman reports**

The Commonwealth Ombudsman made no formal reports relating to the MDBA during 2021-22.

## Office of the Australian Information Commissioner reports

The Office of the Australian Information Commissioner made no findings or reviews relating to MDBA freedom of information or privacy matters during 2021–22.

## **Capability reviews**

No capability reviews in relation to the MDBA were released during 2021-22.

## Freedom of information

Agencies subject to the *Freedom of Information Act* 1982 (Cth) are required to publish information under the Information Publication Scheme (IPS). The MDBA maintains a disclosure log and complies with the obligation to publish a range of information on its website as part of the IPS.

Information on the MDBA's approach to the IPS can be accessed at Information publication scheme [https://www.mdba.gov.au/about-us/accountability-reporting/information-publication-scheme].

# Ministerial directions and government policy orders

Under the PGPA Rule, the MDBA is required to report on any ministerial directions which are given under an Act or instrument. The MDBA did not receive any new ministerial directions during 2021-22. The MDBA continues to comply with the Water (Indigenous Values and Uses) Direction 2018 (Cth).

Under the PGPA Act the MDBA must report on any government policy orders that applied to it during the reporting period. The MDBA was not subject to any government policy orders during 2021–22.

## Advertising and market research

Under section 17AH of the PGPA Rule, the MDBA is required to report on any advertising and market research undertaken during the financial year above the threshold set out in section 311A of the *Commonwealth Electoral Act 1918*.

During the reporting period the MDBA did not have any advertising, polling or direct mail expenses that met the threshold of more than \$14,500.

# Ecological sustainability and environmental performance

Ecological sustainability is at the core of the MDBA's activities and is reflected in the Water Act. As per the *Environmental Protection and Biodiversity Conservation Act 1999*, the MDBA is required to report on its environmental performance. This includes how the MDBA is considering the principles of ecologically sustainable development (ESD) in its business activities.

## **Ecological sustainability**

There are 5 principles of ecological sustainable development:

- the integration principle decision-making processes should effectively integrate both longterm and short-term economic, environmental, social and equitable considerations
- the precautionary principle if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation
- the intergenerational principle the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations
- the biodiversity principle the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making
- the valuation principle improved valuation, pricing and incentive mechanisms should be promoted.

Table 10 shows some examples of how the MDBA is meeting and advancing these principles in its work.

Table 10: Examples of MDBA performance in meeting principles of ecologically sustainable development

How furt	How the activity meets and furthers ESD principles				
•	•			•	
•	•				
	•				
	How furt	How the ad furthers ES	How the activity furthers ESD prin	How the activity meets furthers ESD principles	

Meets the integration principle by incorporating long- and short-term considerations of economic, environmental damage environmental, social and equitable aspects

Meets the precautionary principle by acting to prevent potential

Meets the intergenerational Meets the biodiversity principle by ensuring that the health of the Basin biodiversity consideration the health of the Basin biodiversity conside is preserved for future in decision-making generations

biodiversity considerations

۱p by promoting improved valuation, pricing and incentive mechanisms

## Environmental performance

The MDBA takes a proactive approach to managing its activities in way that minimises the effect on the environment. This approach is shown in Table 11.

Theme	MDBA measures
Energy efficiency	Factoring in whitegoods and ICT equipment with the highest energy-saving when determining procurement best value
	<ul> <li>Installing LED lighting with movement sensors throughout MDBA offices and turning lights off in areas not in use</li> </ul>
	Using power-efficient centralised multi-function devices instead of desktop printers
	Directly heating all hot water in kitchens through zip heater systems
	Achieving a 6-star NABERS Energy Tenancy rating for the MDBA Canberra office space
	Setting cooling and heating HVAC systems to appropriate and efficient-saving temperatures
	Achieving the following NABERS Energy Tenancy ratings in applicable regional offices:
	– Goondiwindi - 6
	– Mildura – 4.5
	– Griffith – 4.5
	<ul> <li>Murray Bridge - 4</li> <li>Note: the Toowoomba, Wodonga and Adelaide offices are situated within shared office spaces</li> </ul>
	Asking staff to:
	<ul> <li>turn off lights to rooms when not in use</li> </ul>
	<ul> <li>turn off computer monitors overnight</li> </ul>
Waste	<ul> <li>Minimising paper and toner usage by defaulting printer settings to print paper double-sided and use black and white ink</li> </ul>
	<ul> <li>Minimising paper usage by enabling 'swipe-to-print', allowing staff to print only the documents they need</li> </ul>
	Publishing only in electronic format, unless print copies are required
	<ul> <li>Having Basin-wide recycling initiatives in place across MDBA offices including, but not limited to, battery, organic plastic bottle tops, coffee pods and organic waste recycling</li> </ul>
	<ul> <li>Achieving NABERS Waste Management ratings of between 2 and 5 stars for Griffith, Mildura and Murray Bridge regional offices. Recycling options offered are limited to the capacity of regional shire councils</li> </ul>
	<ul> <li>Using toilet tissue supplies from a company that uses 100% renewable resources and donates 50% of profits to help build ablution blocks for communities in need</li> </ul>
Water	<ul> <li>Working with building management in applicable MDBA office locations on water-saving initiatives including installing:</li> </ul>
	<ul> <li>water-efficient toilets</li> </ul>
	<ul> <li>low-flow shower heads</li> </ul>
	<ul> <li>sensor-operated taps in bathrooms</li> </ul>
	<ul> <li>low flow taps in all kitchen areas</li> </ul>
Travel	<ul> <li>Encouraging staff to minimise non-essential travel and providing all staff with access to video conferencing software to facilitate electronic meetings.</li> </ul>
	<ul> <li>Supporting staff who cycle to work by providing a secured bike storage area, and end-of-trip facilities consisting of lockers, toilets and showers in the Canberra office</li> </ul>

# People and culture

Our people are an integral part of how we will achieve the MDBA's purpose of a healthy working Basin for the long-term benefit of the Australian community.

We deliver on our purpose through capable, connected people who are supported to continuously learn, develop and work together as a cohesive and multi-disciplinary team that promotes diversity and well-being for all our people.

In 2021 the MDBA launched its People Strategy 2021–26, which provides the framework for initiatives supporting MDBA staff. The implementation of this strategy is supported by related strategies and plans which will continue to strengthen capability, build our culture, support health and wellbeing, deliver our workforce strategy and enable effective business delivery.

## **PEOPLE STRATEGY 2021-2026**

The People Strategy enables us to deliver our strategic priorities and shows how we are supporting and developing our people so they are capable, engaged and connected.

**FIVE STRATEGIC PILLARS** Build a diverse, Strengthen Support health Deliver our Enable effective inclusive and agile workforce strategy capability and wellbeing business delivery culture **STRENGTHEN** BUILD SUPPORT DELIVER **ENABLE** Build a diverse, Support our health Support the enterprise Strengthen our Execute our strategies capabilities to meet inclusive and and wellbeing and meet our targets service delivery our commitments agile culture

Our people vision is to have a capable, engaged and connected workforce with a diverse, inclusive and agile culture.

Figure 22: The 5 strategic pillars of the MDBA's People Strategy 2021-2026

In response, to support the health and wellbeing of our staff, in 2021 the MDBA established a Mental Health and Wellbeing Strategy to help build a workplace that is safe and supportive for people to feel at their best and do their best work. The strategy was developed in line with the APS Mental Health Capability Framework. It is a key action in the People Strategy 2021-26.

The MDBA has also provided staff with opportunities to strengthen their capabilities so they can excel in their roles and enhance their skills and experience to make a meaningful contribution to supporting a healthy working Basin. Our staff have participated in specialist leadership programs, including Women in Water Leadership, Science to Policy Leadership Program and the Jawun Indigenous Secondment Program.

## **Ethical standards**

The MDBA is committed to good and transparent governance. The MDBA's ability to deliver its activities and functions relies on public confidence in the integrity of the agency. The MDBA promotes a single organisational culture built on the CREATE values. As a Commonwealth agency, these values are underpinned by the Australian Public Service (APS) values: committed to service, ethical, respectful, accountable and impartial.

The MDBA's Essential Skills Refresher program ensures staff have a strong awareness and understanding of the requirements of working in the APS and their responsibilities as APS employees. All employees complete this annually through selfpaced eLearning modules on the MDBA's learning management system, LearnHub. Standards and behaviours are set out in the APS Code of Conduct in section 13 of the *Public Service Act 1999.* The MDBA supplements this with policies that support ethical standards including:

- Procedures for determining APS Code of Conduct breaches
- MDBA Declaration of Interest Policy 2022-2024
- MDBA Fraud Control Plan and Policy 2019-2021
- Accountable Authority Instructions 2022-24
- Policy for managing Sensitive Water Market Information 2022–2024
- Conflict of interest guidance for Authority members

These policies are published on the MDBA's website at https://www.mdba.gov.au/about-us/accountabilityreporting

## Work health and safety

Initiatives delivered in 2021-22 included:

- regular workplace inspections and risk assessments monitored by the Health and Safety Committee
- promotion of R U OK? Day
- early intervention services to prevent and mitigate chronic injuries or illnesses developing
- implementation, maintenance and improvement of procedures in the workplace to protect employees from COVID-19
- annual flu vaccinations
- workstation assessment (including home-based) by qualified occupational therapists
- rehabilitation support
- confidential support services for employees and eligible family members through the Employee Assistance Program
- an annual health and wellbeing allowance
- activities for the annual health and wellbeing week
- wellbeing series presented by the Employee Assistance Program.

There were 2 reported incidents and one new claim approved (see Tables 12 and 13).

#### Table 12: Health and safety statistics over a 7-year period

	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Internal reports on workplace hazards and incidents	16	7	23	12	7	1	2
Lost time caused by incidents and injuries not reported to Comcare (staff days)	1.5	58	14.5	2.5	0	0	0
Lost time caused by incidents and injuries reported to Comcare (staff days)	0	0	3	0	0	0	0
Incidents reported to Comcare	0	0	1	0	0	0	0

Table 13: Comparison of Comcare claims and premiums over a 7-year period

	2015-16	2016-17	2017-18	2018-19	2019-20	2012-21	2021-22
Number of new claims	0	0	1	0	0	0	1
Total cost of new claims (\$)	0	0	2,552	0	0	0	7,334
Average cost of new claims (\$)	0	0	2,552	0	0	0	0
Comcare premium (\$)	1,062,746	1,040,669	1,026,752	357,142	116,181	87,435	86,953

## Health and Safety Committee

The Health and Safety Committee assists the MDBA's Executive to ensure health and safety for MDBA employees at work. This includes assisting with developing policies and procedures and coordinating activities for special events including the annual health and wellbeing week.

The Committee meets 4 times each year.

Membership comprises:

- Chair Chief Legal Officer, Business Services
- Deputy Chair Senior Director, People and Regionalisation
- Director, People and Culture
- Management representative
- Health and Safety representatives Canberra
- Health and Safety representative regional offices.

## **Employee arrangements**

On 30 June 2022, the MDBA had 279 staff: 259 ongoing and 20 non-ongoing (see Tables 14 and 15). The MDBA did not have any staff in the Northern Territory, Tasmania, the external territories or overseas.

Staff are employed under the Murray–Darling Authority Enterprise Agreement 2017–2020. The terms of this agreement will continue to apply until 10 July 2023 or until it is replaced by a new enterprise agreement under the provisions of the *Fair Work Act 2009*.

In July 2021 MDBA staff received their second pay rise as agreed under the section 24(1) Determination of the Public Service Act to increase salaries and allowances. The Determination allowed for 3 pay rises of 2% in July 2020, July 2021 and July 2022.

## **Employee Consultative Committee**

The Employee Consultative Committee (ECC) is established under Clause 11 of the Murray–Darling Basin Authority Enterprise Agreement 2017–2020 to facilitate communication, consultation and cooperation with employees on matters affecting the workplace and the operation of the Enterprise Agreement. The ECC provides a forum for involving staff in the decision-making for changes to existing policies, guidelines or procedures, and the development of new ones, and for providing advice to the Chief Executive on matters relating to the Enterprise Agreement. Membership comprises:

- the Chief Executive (chair)
- management representatives
- portfolio representatives
- regional representatives
- employee representatives from the relevant unions.

## **Employee numbers**

	Male				Female			Indeterminate		
	Full time	Part time	Total Male	Full time	Part time	Total Female	Full time	Part time	Total Indeterminate	
NSW	4	2	6	8	0	8	0	0	0	14
QLD	4	0	4	4	2	6	0	0	0	10
SA	13	0	13	10	3	13	1	0	1	27
VIC	14	1	15	10	1	11	0	0	0	26
WA	0	0	0	1	0	1	0	0	0	1
ACT	87	4	91	66	24	90	0	0	0	181
Total	122	7	129	99	30	129	1	0	1	259

Table 14: Ongoing employees current reporting period (2021-22)

Table 15: Non-ongoing employees current reporting period (2021-22)

	Male				Female			Indeterminate		
	Full time	Part time	Total Male	Full time	Part time	Total Female	Full time	Part time	Total Indeterminate	
NSW	2	0	2	2	0	2	0	0	0	4
QLD	0	0	0	1	0	1	0	0	0	1
SA	2	0	2	3	0	3	0	0	0	5
VIC	3	0	3	0	1	1	0	0	0	4
WA	0	0	0	0	0	0	0	0	0	0
ACT	4	0	4	1	1	2	0	0	0	6
Total	11	0	11	7	2	9	0	0	0	20

Table	16:	Ongoing	employees	previous	reporting	period	(2020-2	1)
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	Male				Female			Indeterminate		
	Full time	Part time	Total Male	Full time	Part time	Total Female	Full time	Part time	Total Indeterminate	
NSW	6	2	8	9	0	9	0	0	0	17
QLD	3	0	3	5	0	5	0	0	0	8
SA	12	0	12	5	2	7	0	0	0	19
VIC	11	0	11	14	1	15	1	0	1	27
WA	0	0	0	0	1	1	0	0	0	1
ACT	93	3	96	78	20	98	0	0	0	194
Total	125	5	130	111	24	135	1	0	1	266

Table 17: Non-ongoing employees previous reporting period (2020-21)

		Male			Female			Indeterm	inate	Total
	Full time	Part time	Total Male	Full time	Part time	Total Female	Full time	Part time	Total Indeterminate	
NSW	1	0	1	2	0	2	0	0	0	3
QLD	1	0	1	1	0	1	0	0	0	2
SA	4	2	6	4	0	4	0	0	0	10
VIC	2	0	2	3	1	4	0	0	0	6
WA	0	0	0	0	0	0	0	0	0	0
ACT	8	1	9	4	0	4	0	0	0	13
Total	16	3	19	14	1	15	0	0	0	34

## Executive remuneration

The MDBA Authority members – the Chair, the Chief Executive and part-time office holders – have their remuneration determined by the Remuneration Tribunal.

The Chief Executive determines the remuneration for the MDBA's Senior Executive Service (SES) officers under section 24 (1) of the *Public Service Act* 1999 (Cth).

		Shc	ort-term ben	efits	Post- employment benefits	Other long- term benefits	Termination benefits	Total remuneration
Name	Position title	Base salary¹ \$	Bonuses \$	Other benefits and allowances \$	Superannuation contributions \$	Long service leave \$	₩.	v
Air Chief Marshal Sir. Angus Houston AK AFC (Ret'd)	Authority Chair	119,256	1	1	11,937		,	131,193
Prof. Stuart Bunn	Authority Member	71,556	1		7,162	1		78,718
Joanna Hewitt AO	Authority Member	64,976	I		7,272	I	I	72,248
Susan Madden	Authority Member	71,556	I	1	7,162	1	1	78,718
Rene Woods	Authority Member	71,556	I	1	7,162	I	ı	78,718
Roseanne Healy	Authority Member (16/12/21-30/06/22)	38,657	I		3,866	I	I	42,522
Dr Jane Doolan	Authority Member (29/05/22-30/06/22)	6,547	I		1,210	I	I	7,757
Phillip Glyde	Chief Executive (01/07/21-29/08/21)	50,619	I	1,720	8,762	-6,348	I	54,754
Andrew McConville	Chief Executive (19/06/22-30/06/22)	1,367	I	1	1	134	1	1,501
William Goodes	Executive Director	311,882	I	1	45,570	- 2,078	1	355,374
Annette Blyton	Executive Director	285,002	I	6,304	49,922	- 23,394	I	317,834
Andrew Reynolds	Executive Director (Acting Chief Executive 30/08/21-24/06/22)	362,676	1	6,304	43,694	- 15,208		397,466
Vicki Woodburn	Executive Director (01/07/21 to 17/10/21)	76,944	1	4,104	14,234	7,836		103,118
Gregory Manning	Executive Director (23/11/21 to 30/06/22)	193,024	I	2,274	27,321	1,523	I	224,143
Andrew Kremor	Executive Director (acting from 30/08/21 to 26/06/22)	230,722	I	1	29,764	1,817		262,303

Table 18: Remuneration for key management personnel

executives
senior
for
Remuneration
19:
Table

Total	werage total emuneration	112,911	233,886	276,592	
Termination benefits r	Average termination <i>A</i> benefits rr \$	I	ı	I	
Other long-term benefits	Average long service leave \$	-2,017	12,157	096	
Post- employment benefits	Average superannuation contributions \$	13,435	24,911	37,945	
	Average other benefits and allowances <sup>2</sup>	310	I	2,205	
lort-term benefits	Average bonuses \$	ı	ı	I	
ß	Average base salary <sup>1</sup> \$	101,183	196,817	235,482	
	Number of senior executive staff	4	1	5	
	Total remuneration bands	\$220,000 or less	\$220,001-\$245,000	\$270,001-\$295,000	

1 Base salary includes the current reporting period's annual leave accrual and excludes the leave paid in the current reporting period.

2 Other benefits and allowances is the the provision of carpark and associated Fringe Benefits Tax (where applicable)

# Table 20: Remuneration for other highly paid staff

		Sho	rt-term benefits		Post- employment benefits	Other long-term benefits	Termination benefits	Total remuneration
Total remuneration bands	Number of other highly paid staff	Average base salary <sup>1</sup> \$	Average bonuses \$	Average other benefits and allowances <sup>2</sup>	Average superannuation contributions	Average long service leave \$	Average termination benefits \$	Average total remuneration
\$235,001 - \$245,000	1	207,088	I	7,888	36,480	-7,607		243,848

1 Base salary includes the current reporting period's annual leave accrual and excludes the leave paid in the current reporting period.

2 Other benefits and allowances is the the provision of carpark and associated Fringe Benefits Tax (where applicable)



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# Chief Finance Officer's report

## **Financial performance**

For 2021-22 the MDBA reported a total comprehensive income attributable to the Australian Government of \$29.7 million (2020-21: \$9.2 million). This was a result of:

- Revenue received during the year for projects that contributed towards the operating surplus primarily included the South Australia Riverland Floodplain Integrated Infrastructure Project (SARFIIP) and the Integrated River Modelling Uplift Project (IRMUP), where total funding received was \$39.9 million against total expenditure of \$9.3 million.
- Lower spending than anticipated on the Murray-Darling Basin Agreement functions.

A significant portion of this will be carried over into the 2022–23 financial year to complete the projects in progress.

Expenditure for Murray-Darling Basin Agreement functions was lower than budgeted due to an underspend by the state construction authorities (SCAs) against planned expenditure. Underspends by SCAs are mostly delays in the completion of construction and maintenance activities and will require a carryover of the unspent budget. In addition to this, underspends in the joint programs were due to the impacts of COVID-19, which resulted in supply-chain issues and difficulty in timely procurement of resources across the jurisdictions.

## Revenue

During 2021-22 the MDBA's revenue comprised:

- revenue from the Australian Government totalling \$80.8 million (2020-21: \$62.0 million). This was higher in 2021-22 primarily due to the increase in funding received for SARFIIP (increase of \$22.3 million from 2020-21); and new funding received for the IRMUP of \$9.9 million (\$Nil in 2020-21).
- contributions from jurisdictions of \$101.5 million (2020-21: \$83.2 million). This was higher in 2021-22 due to a larger Joint Programs

planned expenditure (which included additional expenditure for the Hume Dam irrigation outlet project) for 2021–22. In addition to this, jurisdictions have an option to offset their annual contributions using previously accumulated underspends. In 2021–22 jurisdictions utilised a smaller portion of their previously accumulated underspends compared to 2020–21.

 other revenue of \$16.9 million (2020-21: \$34.6 million). The reduction in other revenue primarily related to the cessation of funding for the Hydrometric Network and Remote Sensing Program in 2021-22.



Figure 23: MDBA revenue trends (2015-16 to 2021-22)

## Expenditure

The MDBA total expenditure for 2021-22 was \$169.5 million (2020-21: \$171.1 million). The decrease from the prior year is primarily due to lower expenditure on SARFIIP and a decrease in employee expenditure due to an overall reduction in the MDBA's ASL.

Figure 24 shows revenue received, expenditure incurred and the available funds. On transition from the Murray–Darling Basin Commission to the MDBA during 2008, the available funds were \$441.5 million. A significant component of these funds has been applied for RMO key construction projects, including the Environmental Works and Measures Program; and the MDBA share in the acquisition of water entitlements for The Living Murray program, which resulted in declining cash reserves. These reserves have now started to increase again due to the recent surpluses in the joint program activities from lower than anticipated expenditure on capital infrastructure projects and other key projects. The balance held in the special account primarily relates to accumulated underspends of the joint program; various memorandums of understanding (MOUs) such as the Hydrometric Network and Remote Sensing project and the Water and Environment Research Program; and key Commonwealth funded projects such as SARFIIP, Decentralisation and IRMUP. Cash reserves in the special account relating to these activities are not available to the MDBA for funding its broader priorities.

The MDBA operating bank account is a special account under section 209 of the *Water Act 2007* (the Water Act). The account is not a Special Account for the purposes of the *Public Governance, Performance and Accountability Act 2013* (the PGPA Act). The Water Act specifies that all amounts received by the MDBA in connection with the performance of its functions under the Water Act must be credited to this special account. The bank account opening balance at 1 July 2021 was \$154.1 million. This increased to \$187.4 million at the end of the year after receipts of \$212.4 million and payments of \$179.1 million.



Figure 24: MDBA revenue, expenditure, and special account (2015-16 to 2021-22)

## Managing our assets

## Assets and asset management

The MDBA financial statements include total assets at the end of 2021-22 of \$224.8 million (2020-2021: \$182.4 million). When the Murray-Darling Basin Commission transitioned to the Murray-Darling Basin Authority in December 2008, a significant amount of the assets were transferred to the River Murray Operations (RMO) and Living Murray Initiative (LMI) joint ventures.

## Managed assets: Joint ventures

The two joint ventures were established through separate agreements: Asset Agreement for River Murray Operations Assets (RMO Assets); and Further Agreement on Addressing Water Overallocation and Achieving Environmental Objectives in the Murray–Darling Basin – Control and Management of Living Murray Assets (LMI Assets).

Under the agreements the MDBA has responsibility for managing the following classes of assets:

- infrastructure, plant, land, and easements, which are recorded in the RMO joint venture
- water entitlements, which are recorded in the LMI joint venture.

At 30 June 2022, the RMO joint venture held net assets of \$3.1 billion, including the Hume Dam, the Dartmouth Dam and the locks and weirs on the River Murray. The RMO infrastructure asset base underwent an independent valuation which resulted in a valuation increase of \$419.9 million. After factoring in all additions, depreciation, disposals and revaluations, the net increment to the RMO asset base was \$385.3 million in 2021–22.

Assets acquired under the asset agreement comprise:

- plant and equipment purchases of \$2.8 million
- infrastructure assets constructed and held in work-in-progress of \$3.2 million.

The RMO joint venture assets are subject to periodic independent valuation, with one undertaken in the 2021-22 financial year. The significant valuation increase in the asset base was a result of increases in international commodity prices due to factors emerging from the COVID-19 pandemic and global supply chain issues.

The LMI joint venture held net assets of \$679.8 million, comprising gross investment in water recovery measures of \$695.9 million and accumulated impairment losses of \$16.1 million. The change in the LMI asset values during 2021-22 was the reversal of impairment on water entitlements of \$12.2 million.

Consistent with the prior year, a whole-ofgovernment approach was adopted when undertaking the active market assessment and valuation of water entitlements. This ensured that the valuation methodology and processes were consistent for the entitlements held within the LMI portfolio and the Department of Agriculture, Water and the Environment.

## Financial management

## Special purpose reporting

One of the key functions of the MDBA is to act as an asset manager (on behalf of the assets controlling governments) for key infrastructure assets throughout the Basin. Infrastructure assets primarily comprise RMO assets, such as the Hume Dam, Dartmouth Dam and the locks and weirs on the River Murray, and water entitlements as part of the LMI joint venture. These water entitlement assets were either purchased from willing sellers or acquired as a result of infrastructure improvementbased savings projects to achieve the objectives of The Living Murray initiatives. RMO and LMI assets do not form part of the MDBA general purpose financial statements. They are reported separately in the RMO joint venture and LMI joint venture special purpose financial statements. These special purpose financial statements do not form part of this annual report but are independently audited on an annual basis. As part of the preparation of RMO financial statements, the infrastructure assets are revalued by an independent external valuer on a 3-year cycle.

An independent external valuation was due to be undertaken on 30 June 2021 but had to be delayed due to COVID-19 restrictions. Instead it was performed in the 2021-22 financial year. In the intervening financial years, including 2020-21, the MDBA conducts an internal revaluation by adjusting the value of its infrastructure assets using the Building Price Index, adjusted with a calibration factor of 74% to reflect the unique nature of the RMO asset base.

As part of the preparation of the LMI financial statements, an impairment assessment is undertaken based on an independent valuation report. Water entitlements trading prices are recorded in the state registers. The state registries' water trading data is refined to reliably undertake an impairment assessment that is recorded in the LMI joint venture special purpose financial statements in accordance with Australian Accounting Standards.

Both the RMO and LMI special purpose financial statements are subject to an independent audit each year. The audit for the 2021-22 financial year was completed and the financial statements were distributed to all stakeholders in accordance with the requirements of the relevant asset agreements. The audits resulted in unmodified audit reports.

## **Internal controls**

The MDBA has appropriate financial controls in place, and these operated effectively and reliably during the year. Similarly, no major issues have been identified by the MDBA internal audit process. There is a sound internal control framework in place, including effective identification and management of business risks and a reliable financial management reporting system. As part of the MDBA's corporate accountability and compliance, MDBA APS staff members are required to complete a financial management compliance survey which assists in identifying if any staff have reported noncompliance with the finance law.





#### INDEPENDENT AUDITOR'S REPORT

#### To the Minister for the Environment and Water

#### Opinion

In my opinion, the financial statements of the Murray-Darling Basin Authority (the Entity) for the year ended 30 June 2022:

- (a) comply with Australian Accounting Standards Simplified Disclosures and the Public Governance, Performance and Accountability (Financial Reporting) Rule 2015; and
- (b) present fairly the financial position of the Entity as at 30 June 2022 and its financial performance and cash flows for the year then ended.

The financial statements of the Entity, which I have audited, comprise the following as at 30 June 2022 and for the year then ended:

- Statement by the Accountable Authority and Chief Finance Officer;
- Statement of Comprehensive Income;
- Statement of Financial Position;
- Statement of Changes in Equity;
- Cash Flow Statement; and
- Notes to the financial statements, comprising a summary of significant accounting policies and other explanatory information.

#### **Basis for opinion**

I conducted my audit in accordance with the Australian National Audit Office Auditing Standards, which incorporate the Australian Auditing Standards. My responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of my report. I am independent of the Entity in accordance with the relevant ethical requirements for financial statement audits conducted by the Auditor-General and his delegates. These include the relevant independence requirements of the Accounting Professional and Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants (including Independence Standards)* (the Code) to the extent that they are not in conflict with the *Auditor-General Act 1997*. I have also fulfilled my other responsibilities in accordance with the Code. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

#### Accountable Authority's responsibility for the financial statements

As the Accountable Authority of the Entity, the Chief Executive is responsible under the *Public Governance, Performance and Accountability Act 2013* (the Act) for the preparation and fair presentation of annual financial statements that comply with Australian Accounting Standards – Simplified Disclosures and the rules made under the Act. The Chief Executive is also responsible for such internal control as the Chief Executive determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Chief Executive is responsible for assessing the ability of the Entity to continue as a going concern, taking into account whether the Entity's operations will cease as a result of an administrative restructure or for any other reason. The Chief Executive is also responsible for disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the assessment indicates that it is not appropriate.

GPO Box 707, Canberra ACT 2601 38 Sydney Avenue, Forrest ACT 2603 Phone (02) 6203 7300

#### Auditor's responsibilities for the audit of the financial statements

My objective is to obtain reasonable assurance about whether the financial statements as a whole are 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 National Audit Office 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 the financial statements.

As part of an audit in accordance with the Australian National Audit Office 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 statements, 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 Entity's internal control;
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Accountable Authority;
- conclude on the appropriateness of the Accountable Authority'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 Entity'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 statements 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 Entity to cease to continue as a going concern; and
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

I communicate with the Accountable Authority 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.

Australian National Audit Office

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Bradley Medina Executive Director Delegate of the Auditor-General

Canberra 21 September 2022

## **Murray-Darling Basin Authority**

Statement by the Accountable Authority and Chief Finance Officer

#### **Murray-Darling Basin Authority**

#### STATEMENT BY THE ACCOUNTABLE AUTHORITY AND CHIEF FINANCE OFFICER

In our opinion, the attached financial statements for the year ended 30 June 2022 comply with subsection 42(2) of the *Public Governance, Performance and Accountability Act 2013* (PGPA Act), and are based on properly maintained financial records as per subsection 41(2) of the PGPA Act.

In our opinion, at the date of this statement, there are reasonable grounds to believe that the Murray-Darling Basin Authority will be able to pay its debts as and when they fall due.

Signed..

Andrew McConville Chief Executive 21 September 2022

Signed...

Harish Madan Chief Finance Officer 21 September 2022

#### Statement of Comprehensive Income

for the year ended 30 June 2022

				Original
		2022	2021	Budget
	Notes	\$'000	\$'000	\$'000
NET COST OF SERVICES				
Expenses				
Employee benefits	<u>1.1A</u>	36,328	38,895	37,254
Suppliers	<u>1.1B</u>	107,358	101,778	139,500
Grants	<u>1.1C</u>	20,885	25,184	39,691
Depreciation and amortisation	2.2	4,619	4,765	4,633
Write-down and impairment of assets	<u>1.1D</u>	-	167	-
Finance costs	<u>1.1E</u>	281	300	286
Total expenses	_	169,471	171,089	221,364
Own-source revenue				
Contributions from jurisdictions	1.2A	101.460	83 152	107 266
Interest		158	162	350
Other revenue	1.2B	16.764	34,435	11.328
Total own-source revenue		118,382	117,749	118,944
(LOSSES)/Gains				
Other (Losses)/Gains	1.20	(21)	(14)	85
Reversal of write-downs and impairment	1.20	(= .)	185	-
Total (Losses)/Gains	1.20	(21)	171	85
Total own-source income	-	118.361	117 920	119 029
Net cost of services	-	(51,110)	(53,169)	(102,335)
Revenue from Government	<u>1.2E</u>	80,770	62,007	80,770
Surplus/(Deficit) attributable to the Australian Government		29,660	8,838	(21,565)
OTHER COMPREHENSIVE INCOME				
Changes in asset revaluation reserve		-	409	-
Other comprehensive income	-	29.660	9.247	(21,565)
Total comprehensive income attributable to the Australian	-		<u> </u>	(,000)
Government	-	29,660	9,247	(21,565)

The Original Budget comprises the Departmental budget as disclosed in the Portfolio Budget Statements (PBS) 2021-22.

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

## Budget Variances Commentary

Budget variance explanations are outlined in Note 5. The Original Budget amounts have been adjusted so as to be consistent with the financial statements classification.

## Statement of Financial Position

as at 30 June 2022

				Original
		2022	2021	Budget
	Notes	\$'000	\$'000	\$'000
ASSETS				
Financial assets				
Cash and cash equivalents	<u>2.1A</u>	187,422	154,063	116,684
Trade and other receivables	<u>2.1B</u>	15,604	4,833	3,652
Total financial assets	-	203,026	158,896	120,336
Non-financial assets <sup>1</sup>				
Buildings	2.2	14,514	18,214	16,488
Property, plant and equipment	2.2	1,856	2,477	1,563
Intangibles	2.2	4,843	2,308	16,571
Prepayments		591	468	842
Total non-financial assets	-	21,804	23,467	35,464
Total assets	-	224,830	182,363	155,800
LIABILITIES				
Payables				
Suppliers	<u>2.3A</u>	22,202	17,844	21,941
Other payables	<u>2.3B</u>	2,060	1,507	1,513
Total payables	_	24,262	19,351	23,454
Interest bearing liabilities				
Lease liabilities	<u>2.4</u>	11,781	14,228	10,762
Total interest bearing liabilities	-	11,781	14,228	10,762
Provisions				
Employee provisions	3.1	10,237	12,120	11,332
Other provisions	2.5	1,100	1,063	1,269
Total provisions	_	11,337	13,183	12,601
Total liabilities	-	47,380	46,762	46,817
Net assets	-	177,450	135,601	108,983
EQUITY				
Contributed equity		10,337	(1,852)	10,337
Reserves		411	411	2
Retained earnings	_	166,702	137,042	98,644
Total equity	_	177.450	135.601	108.983

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

<sup>1</sup> Right-of-use assets are included in the line items: Buildings and Property, plant and equipment.

## Budget Variances Commentary

Budget variance explanations are outlined in Note 5. The Original Budget amounts have been adjusted so as to be consistent with the financial statements classification.

## Statement of Changes in Equity

for the year ended 30 June 2022

			Original
	2022	2021	Budget
	\$'000	\$'000	\$'000
CONTRIBUTED EQUITY/CAPITAL			
Opening balance			
Balance carried forward from previous year <sup>1</sup>	(1,852)	(3,774)	(1,852)
Contributions by owners			
Equity injection <sup>2</sup>	12,189	1,922	12,189
Closing balance	10,337	(1,852)	10,337
RETAINED EARNINGS <sup>3</sup>			
Opening balance			
Balance carried forward from previous year	137,042	128,204	120,209
Opening balance	137,042	128,204	120,209
Comprehensive income			
Surplus/(Deficit) for the period	29.660	8.838	(21,565)
Total comprehensive income	29,660	8,838	(21,565)
Closing balance	166,702	137,042	98,644
ASSET REVALUATION RESERVE			
Balance carried forward from previous year	411	2	2
Opening balance	411	2	2
Comprehensive income			
Other comprehensive income	-	409	-
Total comprehensive income	-	409	-
Closing balance	411	411	2
TOTAL EQUITY			
Opening balance			
Balance carried forward from previous year	135,601	124,432	118,359
Opening balance	135,601	124,432	118,359
Comprehensive income			
Surplus/(Deficit) for the period	29,660	8,838	(21,565)
Other comprehensive income	-	409	-
Total comprehensive income	29,660	9,247	(21,565)
Contributions by owners			
Equity injection	12,189	1,922	12,189
Total transactions with owners	12,189	1,922	12,189
Closing balance as at 30 June	177.450	135.601	108.983
			,

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

<sup>1</sup> The negative contributed equity is a historical legacy relating to the transition of the Murray-Darling Basin Commission (MDBC) to the Murray-Darling Basin Authority (Authority) on 15 December 2008. As part of the transition arrangement, all cash held by the MDBC totalling \$441.488 million was paid to the Official Public Account (OPA) before being appropriated to the Authority. Once appropriated to the Authority these funds were recorded as revenue in the financial statements of the Authority.

Liabilities of \$19.180 million and assets of \$7.981 million were transferred to the Authority during the 2008-09 financial year. The excess of liabilities over assets of \$11.199 million has subsequently been reduced by equity injections over prior financial years. The 2022 contributed equity balance has become positive as a result of an equity injection of \$12.189 million received in 2021-22.

<sup>2</sup> The equity injection received in 2021-22 relates to funding for Integrated River Modelling Uplift Program, and the capital purchases required to support the relocation of resources to regional areas as part of the regionalisation initiative.

<sup>3</sup> The retained earnings balance includes funding for certain projects received and recognised as income in past financial years which will be utilised in future years. Refer to the Overview section for further detail.
# Statement of Changes in Equity (continued) for the year ended 30 June 2022

# Accounting Policy

Equity Injections Amounts appropriated which are designated as 'equity injections' for a year (less any formal reductions) and Departmental Capital Budgets (DCBs) are recognised directly in contributed equity in that year.

## Budget Variances Commentary

Budget variance explanations are outlined in Note 5. The Original Budget amounts have been adjusted so as to be consistent with the financial statements classification.

# Cash Flow Statement

for the year ended 30 June 2022

				Original
		2022	2021	Budget
	Notes	\$'000	\$'000	\$'000
OPERATING ACTIVITIES				
Cash received				
Receipts from Government		80,770	62,007	80,770
Contributions from jurisdictions		91,850	83,095	107,266
Interest		53	380	350
Net GST received		11,180	9,959	16,093
Other	_	16,385	33,403	11,328
Total cash received	-	200,238	188,844	215,807
Cash used				
Employees		37,658	38,007	37,254
Suppliers		113,794	113,939	154,572
Grants		22,071	26,356	40,663
Interest payments on lease liabilities	_	244	289	254
Total cash used		173,767	178,591	232,743
Net cash from/(used by) operating activities	-	26,471	10,253	(16,936)
INVESTING ACTIVITIES				
Cash received				
Proceeds from sales	-	-		-
Total cash received	-	-		
Cash used				
Purchase of property, plant and equipment		45	1,314	1,636
Purchase of intangible assets	-	2,718	1,307	14,062
Total cash used	_	2,763	2,621	15,698
Net cash (used by) investing activities	-	(2,763)	(2,621)	(15,698)
FINANCING ACTIVITIES				
Cash received				
Contributed equity	-	12,189	1,922	12,189
Total cash received	-	12,189	1,922	12,189
Cash used				
Principal payments of lease liabilities	_	2,538	2,496	2,604
Total cash used	-	2,538	2,496	2,604
Net cash from/(used by) financing activities	-	9,651	(574)	9,585
Net Increase/(decrease) in cash held	-	33,359	7,058	(23,049)
Cash and cash equivalents at the beginning of the reporting period	-	154,063	147,005	139,733
Cash and cash equivalents at the end of the reporting period	<u>2.1A</u>	187,422	154,063	116,684

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

# Budget Variances Commentary

Budget variance explanations are outlined in Note 5. The Original Budget amounts have been adjusted so as to be consistent with the financial statements classification.

#### Overview

#### **Objectives of the Murray-Darling Basin Authority**

The Murray-Darling Basin Authority (the Authority) is an Australian Government controlled corporate Commonwealth Authority established by the *Water Act 2007*. It is a not-for-profit entity. The principal objective of the Authority is to manage the Murray-Darling Basin's water resources in the national interest so that there may be an equitable and sustainable use of the Basin's resources.

The continued existence of the Authority in its present form and with its present programs is dependent on:

• Funding from Basin jurisdictions towards meeting the cost of Murray-Darling Basin Agreement functions; and

• Government policy and on continuing funding by Commonwealth Government for the Authority's administration and programs relating to the Basin Plan and Murray-Darling Basin Agreement functions.

The Authority's activities are classified as departmental. Departmental activities involve the use of assets, liabilities, income and expenses controlled or incurred by the Authority in its own right.

From 1 July 2013, the Authority became responsible for the South Australian Riverland Floodplains Integrated Infrastructure Program (SARFIIP). SARFIIP aims to enhance the effectiveness of improved environmental flows to South Australia, in particular at the Pike and Katarapko - Eckert's Creek (Katfish Reach) Floodplains and was initially expected to extend over 7 years, with an estimated cost of \$155 million. While these activities are not controlled by the Authority it exercises effective project oversight and funding on behalf of the Commonwealth. SARFIIP funding is recorded as revenue from government and expenses are recorded as a grant expense in the Authority's Statement of Comprehensive Income. Prior to 2014-15, the project was reported as an Administered item.

In 2020-21, additional funding was approved and provided to the Authority for the SARFIIP program for the financial years 2020-21 and 2021-22. The additional funding brings the Commonwealth total funding for the program to \$192.6 million. New projects have been included in the SARFIIP program as a result of the additional funding.

#### **Unspent Funding**

The cash and cash equivalents and retained earnings balances include funding which has been received and recognised as income in previous financial years in relation to ongoing work associated with the joint programs, various Memorandums of Understanding (MOUs) and Commonwealth funded key projects.

This ongoing work is primarily related to long term projects for which delivery is heavily reliant on the capacity of the respective delivery partners, environmental conditions, access to construction sites, stakeholder engagement and the availability of major equipment. As at 30 June 2022, \$129.036 million or 69% of the cash balance (2021 \$104.124 million or 68%) was held in respect to the joint programs, various MOUs and Commonwealth funded key projects. This funding will be utilised (and recognised as an expense) in future years as projects are delivered, consistent with the purpose for which it was originally received.

For further detail on current year financial performance compared to the Original Budget refer to the budget variance explanations as outlined in Note 5.

#### The Basis of Preparation

The financial statements are required by section 42 of the Public Governance, Performance and Accountability Act 2013 (PGPA Act).

The financial statements have been prepared in accordance with:

a) Division 4 of Part 2-3, Public Governance, Performance and Accountability Rule 2014;

b) Public Governance, Performance and Accountability (Financial Reporting) Rule 2015 (FRR); and

c) Australian Accounting Standards and Interpretations – including simplified disclosures for Tier 2 Entities under AASB 1060 issued by the Australian Accounting Standards Board (AASB) that apply for the reporting period.

The financial statements have been prepared on an accrual basis and in accordance with the historical cost convention except for certain assets and liabilities reported at fair value. Except where stated, no allowance is made for the effect of changing prices on the results or the financial position.

The financial statements are presented in Australian dollars and values are rounded to the nearest thousand dollars unless otherwise specified.

Unless alternative treatment is specifically required by an accounting standard, income and expenses are recognised in the Statement of Comprehensive Income, when and only when the flow, consumption or loss of economic benefits has occurred and can be reliably measured.

#### New Accounting Standards

All new, revised or amended standards and interpretations that were issued prior to the sign-off date and are applicable to the current reporting date did not have a material effect on the Authority's financial statements.

Standard/ Interpretation	Nature of change in accounting policy, transitional provisions, and adjustment to financial statements
AASB 1060 General Purpose Financial Statements – Simplified Disclosures for For-Profit and Not-for-Profit Tier 2 Entities	AASB 1060 applies to annual reporting periods beginning on or after 1 July 2021 and replaces the reduced disclosure requirements (RDR) framework. The application of AASB 1060 involves some reduction in disclosure compared to the RDR with no impact on the reported financial position, financial performance and cash flows of the entity.

#### **Overview - continued**

#### Taxation

The Authority is exempt from all forms of taxation except for Fringe Benefits Tax (FBT) and the Goods and Services Tax (GST).

- Revenues, expenses and assets are recognised net of GST except: where the amount of GST incurred is not recoverable from the Australian Taxation Office; and for receivables and payables, other than accrued assets and liabilities based on estimates, are recognised inclusive of GST.

#### **Events After the Reporting Period**

From 1 July 2022, the Authority was transferred from the Department of Agriculture, Water and Environment (DAWE) portfolio to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) portfolio. This Machinery of Government change follows the Administrative Arrangements Orders issued on 1 June 2022. There is no impact to the operations of the Authority.

No matters or circumstances have arisen since the end of the financial year which significantly affected or may affect the operations of the Authority, the results of these operations or state of affairs of the Authority in subsequent years.

# **Financial Performance**

This section analyses the financial performance of the Authority for the year ended 30 June 2022.

Noto 1 1: Expansos		
Note I.I. Expenses		
	2022	2021
	\$'000	\$'000
Note 1.1A: Employee Benefits	+	+ • • • •
Wages and salaries	27.060	28 512
Superannuation:	27,000	20,012
Defined contribution plans	3 554	3 627
Defined benefit plans	1 637	1 680
Leave and other entitlements	4 025	4 773
Separation and redundancies	-,020	303
Total employee benefits	36 328	38 895
		30,033
Accounting policy		
Accounting policies for employee related expenses are outlin	ed in Note 3.1.	
Note 1.1B: Suppliers		
Goods and services supplied or rendered	<u></u>	57.000
Expenditure by State Constructing Authonities	65,495	57,906
	4,967	4,260
	29,629	32,852
Communication and TI services	3,743	3,218
Other employment related expenses	991	1,206
	192	293
l ravel	497	603
Other	1,686	1,216
Goods and services supplied or rendered	107,200	101,554
Goods and services are made up of		
Provision of goods	275	131
Rendering of services	106 925	101 120
Total goods and services supplied or rendered	107,200	101,120
Total goods and services supplied of rendered	107,200	101,554
Other suppliers		
Short-term leases	66	116
Workers' compensation expenses	92	108
Total other suppliers	158	224
Total suppliers	107,358	101,778

The Authority has no short-term lease commitments as at 30 June 2022.

The above lease disclosure should be read in conjunction with the accompanying notes 1.1E, 2.2 and 2.4.

# Note 1.1: Expenses - continued

# Accounting policy

### Short-term leases and leases of low-value assets

The Authority has elected not to recognise right-of-use assets and lease liabilities for short-term leases of assets that have a lease term of 12 months or less and leases of low-value assets (less than \$10,000). The Authority recognises the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

Note 1.1C: Grants	2022 \$'000	2021 \$'000
State and Territory Governments	11,381	11,576
South Australian Riverland Floodplains Integrated Infrastructure Program	8,000	11,223
Private sector:		
Commercial entities	210	100
Non-profit institutions	727	1,853
Other	567	432
Total grants	20,885	25,184

# Accounting policy

The Authority administers a number of grant schemes. Grant liabilities are recognised to the extent that (i) the services required to be performed by the grantee have been performed, or (ii) the grant eligibility criteria have been satisfied, but payments due have not been made. When the Authority enters into an agreement to make these grants and services but services have not been performed or criteria satisfied, this is considered a commitment.

Note 1.1D: Write-Down and Impairment of Assets		
Impairment of intangible assets	-	167
Total write-down and impairment of assets		167
Note 1.1E: Finance Costs		
Unwinding of discount on make good provision	37	20
Interest on lease liabilities	244	280
Total finance costs	281	300
Accounting policy		
All borrowing costs are expensed as incurred.		

The above lease disclosures should be read in conjunction with the accompanying notes 1.1B, 2.2 and 2.4.

# Note 1.2: Own-Source Revenue and Gains

Own-Source Revenue	2022 \$'000	2021 \$'000
Note 1.2A: Contributions from Jurisdictions		
Australian Government	14,622	12,560
New South Wales	32,374	28,639
Victoria	29,926	21,800
South Australia	24,192	19,715
Queensland	112	110
Australian Capital Territory	234	328
Total contributions from jurisdictions	101,460	83,152

# Accounting policy

The Authority receives contributions from jurisdictions based on an agreed contributions model (the model). The model is based on a number of different requirements including specific provisions under the Murray-Darling Basin Agreement. These contributions are recognised as revenue when received or when the Authority has control over the underlying assets.

# Note 1.2B: Other Revenue

Hydropower generation	2,449	722
Funding from other MOUs <sup>1</sup>	10,658	25,298
Contributions by States - Salinity program	1,113	1,198
Revenue from use of Land and Cottage	186	331
Proceeds from disposal of RMO assets <sup>2</sup>	-	5,172
Resources received free of charge - Remuneration of auditors	85	85
Other	2,273	1,629
Total other revenue	16,764	34,435

<sup>1</sup> Amounts relate to revenue received in relation to Memorandums of Understanding (MOUs) signed with the Department of Agriculture, Water and the Environment (DAWE) for the Murray-Darling Basin Water and Environment Research Program, Ecosystem Functions Research Program, Northern Basin Cameras Project, and Office of Compliance Machinery of Government Transfer.

<sup>2</sup> Proceeds received from disposal of River Murray Operations (RMO) surplus assets. The Authority is responsible for managing the RMO assets on behalf of the asset controlling governments. The proceeds were paid to the Authority to offset future contributions from jurisdictions under section 82 (2) of the *Water Act 2007* (Cth).

# Accounting policy

#### Hydropower generation

Hydroelectricity revenue is generated when the release of water from Hume and Dartmouth Dams is routed through electricity generating plants. The Authority received payments based on recovery of a set percentage of the hydroelectricity revenue generated by the plants during the period.

#### Funding from other MOUs

Revenue is recognised based on milestones achieved during the period as set out in the relevant MOUs.

# Contributions by States - Salinity program

Revenue is recognised as costs incurred as this program operates on a cost recovery basis.

# Revenue from use of Land and cottage

Rental revenue is recognised based on the use of land and cottage.

# Other revenue

Other revenue comprises miscellaneous revenue that is recognised both at a point in time and over time depending on the nature of the transaction.

# Resources Received Free of Charge

Resources received free of charge are recognised as revenue when, and only when, a fair value can be reliably determined and the services would have been purchased if these had not been donated. Use of those resources is recognised as an expense. Resources received free of charge are recorded as either revenue or gains depending on their nature.

Note 1.2: Own-Source Revenue and gains - continued		
	2022	2021
	\$'000	\$'000
Gains/(Losses)		
Note 1.2C: Other (Losses)/Gains		
(Loss) on disposal/write-off of assets	(21)	(14)
Total other (losses)/gains	(21)	(14)
Note 1.2D: Reversal of write-downs and impairment		
Reversal of impairment of property, plant and equipment	-	185
Total reversals of previous asset write-downs and impairments	-	185
Revenue from Government		
Note 1.2E: Revenue from Government		
Corporate Commonwealth entity payment item:		
Department of Agriculture, Water and the Environment	80,770	62,007
Total revenue from Government	80,770	62,007
Accounting Policy Funding received or receivable from non-corporate Commonwealth entitie	s (appropriated to th	he Department

Funding received or receivable from non-corporate Commonwealth entities (appropriated to the Department of Agriculture, Water and the Environment as a corporate Commonwealth entity payment item for payment to the Authority) is recognised as Revenue from Government by the Authority unless the funding is in the nature of an equity injection or a loan.

# **Financial Position**

This section analyses the Authority's assets used to conduct its operations and the operating liabilities incurred as a result. Employee related information is disclosed in the People and Relationships section.

Note 2.1: Financial Assets		
	2022	2021
	\$'000	\$'000
Note 2.1A: Cash and Cash Equivalents		
Cash on hand	187,422	154,063
Total cash and cash equivalents	187,422	154,063

# Accounting policy

Cash is recognised at its nominal amount. Cash and cash equivalents include cash on hand and any deposits in bank accounts with an original maturity of three months or less that are readily convertible to known amounts of cash and subject to insignificant risk of changes in value.

Note 2.1B: Trade and Other Receivables		
Trade Receivables	10,210	1,292
Net GST receivable from the Australian Taxation Office	3,353	2,915
Other Receivables	2,041	626
Total trade and other receivables (gross and net)	15,604	4,833

Credit terms for trade receivables were within 30 days (2021: 30 days).

# Accounting policy

Trade receivables and other receivables that are held for the purpose of collecting the contractual cash flows where the cash flows are solely payments of principal and interest, that are not provided at below-market interest rates, are subsequently measured at amortised cost using the effective interest method adjusted for any loss allowance.

#### Note 2.2: Non-Financial Assets

Note 2.2: Reconciliation of the Opening and Closing Balances of Property, Plant and Equipment and Intangibles

#### Reconciliation of the opening and closing balances for 2022

			Intangible a	ssets	
		Property, plant	Computer		
	Buildings	& equipment	software	Data sets	Total
	\$'000	\$'000	\$'000	\$'000	\$'000
As at 1 July 2021					
Gross book value	23,692	2,900	7,819	1,847	36,258
Accumulated depreciation, amortisation and impairment	(5,478)	(423)	(6,745)	(613)	(13,259)
Total as at 1 July 2021	18,214	2,477	1,074	1,234	22,999
Additions					
Purchase or internally developed	10	126	143	2,575	2,854
Depreciation and amortisation	(1,003)	(624)	(115)	(68)	(1,810)
Depreciation on right-of-use assets	(2,707)	(102)	-	-	(2,809)
Disposals (Net Book Value)	-	(21)	-	-	(21)
Total as at 30 June 2022	14,514	1,856	1,102	3,741	21,213
Total as at 30 June 2022 represented by					
Gross book value	23,530	2,878	7,773	4,422	38,603
Accumulated depreciation, amortisation and					
impairment	(9,016)	(1,022)	(6,671)	(681)	(17,390)
Total as at 30 June 2022	14,514	1,856	1,102	3,741	21,213
Total intangible assets			4,843		
Carrying amount of right-of-use assets included in the above total	10 637	04			10 731

#### Revaluation of non-financial assets

All revaluations were conducted in accordance with the revaluation policy stated at Note 2.2. On 31 March 2021, an independent valuer, Deloitte Touche and Tohmatsu, conducted the fair value assessment of the carrying values of all leasehold improvements and property, plant and equipment assets, excluding lease right of use assets. The fair value approach and assumptions adopted for all assets covered by the prior year valuation is the asset's depreciated replacement cost approach

There is no commitment or expectation to dispose or sell any leasehold improvement, property, plant and equipment or intangible assets within the next 12 months.

There is a capital commitment value of \$156,740 expected within the next 12 months (2021: \$35,000).

#### Accounting policy

#### Acquisition of Assets

Assets are recorded at cost on acquisition except as stated below. The cost of acquisition includes the fair value of assets transferred in exchange and liabilities undertaken. Financial assets are initially measured at their fair value plus transaction costs where appropriate.

Assets acquired at no cost, or for nominal consideration, are initially recognised as assets and income at their fair value at the date of acquisition, unless acquired as a consequence of restructuring of administrative arrangements. In the latter case, assets are initially recognised as contributions by owners at the amounts at which they were recognised in the transferor's accounts immediately prior to the restructuring.

Asset Recognition Threshold Purchases of property, plant and equipment are recognised initially at cost in the statement of financial position, except for purchases with a cost of less than \$2,000, which are expensed in the year of acquisition (other than where these items form part of a group of similar items which are significant in total).

#### Lease Right-of-use (ROU) Assets

Leased ROU assets are capitalised at the commencement date of the lease and comprise of the initial lease liability amount, initial direct costs incurred when entering into the lease less any lease incentives received. These assets are accounted for as separate asset classes to corresponding assets owned outright, but included in the same column as where the corresponding underlying assets would be presented if lease items were owned.

The initial cost of an ROU asset also includes an estimate of the cost of dismantling and removing the item and restoring the site on which it is located. This is particularly relevant to 'make good' provisions in property leases taken up by the Authority where there exists an obligation to restore the property to its original condition. These costs are included in the value of the Authority's ROU assets and leasehold improvements (recognised prior to the adoption of AASB 16) with a corresponding provision for the 'make good' recognised.

#### Accounting policy (continued)

#### Revaluation

Following initial recognition at cost, property, plant and equipment (excluding ROU assets) is carried at fair value less subsequent accumulated depreciation and accumulated impairment losses. Valuations are conducted with sufficient frequency to ensure the carrying amounts of assets do not differ materially from the assets' fair values as at the reporting date. The regularity of independent valuations depends upon the volatility of movements in market values for the relevant assets.

Revaluation adjustments are made on a class basis. Any revaluation increment is credited to equity under the heading of asset revaluation reserve except to the extent that it reverses a previous revaluation decrement of the same asset class that was previously recognised in the surplus/deficit. Revaluation decrements for a class of assets are recognised directly in the surplus/deficit except to the extent that these amounts reverse a previous revaluation increment for that class.

Any accumulated depreciation as at the revaluation date is eliminated against the gross carrying amount of the asset and the asset restated to the revalued amount.

#### Depreciation

Depreciable property, plant and equipment assets are written-off to their estimated residual values over their estimated useful lives using the straight-line method of depreciation.

Depreciation rates (useful lives), residual values and methods are reviewed at each reporting date and necessary adjustments are recognised in the current, or current and future reporting periods, as appropriate.

Depreciation and/or amortisation rates applying to each class of asset are based on the following useful life estimates:

Asset Class	2022	2021
Computers and IT equipment	3-7 years	3-7 years
Office equipment	6-9 years	6-9 years
Leasehold improvements	Lease term	Lease term
Data sets	3-20 years	3-20 years
Software applications	2-4 years	2-4 years

The depreciation rates for ROU assets are based on the commencement date to the earlier of the end of the useful life of the ROU asset or the end of the lease term.

#### Impairment

All assets were assessed for indications of impairment at 30 June 2022. Where indications of impairment exist, each asset's recoverable amount is estimated and an impairment adjustment made if the asset's recoverable amount is less than its carrying amount. The recoverable amount of an asset is the higher of its fair value less costs of disposal and its value in use. Value in use is the present value of the future cash flows expected to be derived from the asset. Where the future economic benefit of an asset is not primarily dependent on the asset's ability to generate future cash flows, and the asset would be replaced if the Authority were deprived of the asset, its value in use is taken to be its depreciated replacement cost.

#### Derecognition

An item of property, plant and equipment is derecognised upon disposal or when no further future economic benefits are expected from its use or disposal.

#### Intangibles

The Authority's intangible assets comprise internally developed software and acquired data-sets for internal use. These assets are carried at cost less accumulated amortisation and accumulated impairment losses

All intangible assets in use are amortised on a straight-line basis over its anticipated useful life. All intangible assets were assessed by the Authority for indications of impairment as at 30 June 2022.

# Note 2.3: Payables

	2022 \$'000	2021 \$'000
Note 2.3A: Suppliers		
Trade creditors and accruals	22,202	17,844
Total suppliers	22,202	17,844
Note 2.3B: Other Payables		
Wages and salaries	1,395	856
Superannuation	117	103
Prepayments received/unearned income	548	548
Total other payables	2,060	1,507

# Accounting policy

The Authority's financial liabilities consist of trade creditors and expense accruals. These liabilities are recognised at their nominal amounts, being the amounts at which the Authority expects the liabilities will be settled. Liabilities are recognised to the extent the goods or services have been received (and irrespective of receipt of supplier invoices).

Unearned income represents assets received from another party in advance of the Authority fulfilling its contracted obligations. The Authority releases unearned income to revenue when the services required to be performed have been performed.

# Note 2.4: Leases

	2022	2021
	\$'000	\$'000
Note 2.4: Leases		
Lease liabilities	11,781	14,228
Total leases	11,781	14,228

Total cash outflow for leases for the year ended 30 June 2022 was \$2,782,104 (2021: \$2,784,538).

# Maturity analysis - contractual undiscounted cash flows 2,861 2,754 Within 1 year 2,861 2,754 Between 1 to 5 years 9,452 10,339 More than 5 years 1,912 Total leases 12,313 15,005

The Authority in its capacity as lessee has leases for office accommodation in Griffith, Mildura, Murray Bridge, and at 33 Allara Street in Canberra. The leases at 33 Allara Street, Canberra include office accommodation and carparking.

Lease payments are subject to annual increases of 3% in the Griffith, Mildura and Murray Bridge Offices, and annual rate increase of 3.75% in the Canberra premises. These lease agreements are non-cancellable in the normal course of business.

The above lease disclosures should be read in conjunction with the accompanying notes 1.1B, 1.1E and 2.2.

# Accounting Policy

For all new contracts entered into, the Authority considers whether the 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'.

Once it has been determined that a contract is, or contains a lease, 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, if that rate is readily determinable, or the Authority's incremental borrowing rate.

Subsequent to initial measurement, the liability will be reduced for payments made and increased for interest unwound. It is remeasured to reflect any reassessment or modification to the lease. When the lease liability is remeasured, the corresponding adjustment is reflected in the right-of-use asset or profit and loss depending on the nature of the reassessment or modification.

# Note 2.5: Other Provisions

	2022 \$'000	2021 \$'000
Note 2.5: Other Provisions		
Provision for make good	1,100	1,063
Total other provisions	1,100	1,063

	Provision for	
	make good	Total
	\$'000	\$'000
Carrying amount 1 July 2021	1,063	1,063
Unwinding of discount or change in discount rate	37	37
Closing balance 30 June 2022	1,100	1,100

# **People and Relationships**

This section describes a range of employment and post employment benefits provided to our people and our relationships with other key people.

# Note 3.1: Employee Provisions

	2022	2021
	\$'000	\$'000
Note 3.1: Employee Provisions		
Leave and other entitlements	10,237	12,120
Total employee provisions	10,237	12,120

#### Accounting policy

Liabilities for short-term employee benefits and termination benefits expected within twelve months of the end of reporting period are measured at their nominal amounts.

Other long-term employee benefits are measured at the present value of the defined benefit obligation at the end of the reporting period.

#### <u>Leave</u>

The liability for employee benefits includes provision for annual leave and long service leave. No provision has been made for sick leave as all sick leave is non-vesting and the average sick leave taken in future years by employees of the Authority is estimated to be less than the annual entitlement for sick leave.

The leave liabilities are calculated on the basis of employees' remuneration at the estimated salary rates that will be applied at the time the leave is taken, including the Authority's employer superannuation contribution rates to the extent the leave is likely to be taken during service rather than paid out on termination.

The liability for long service leave has been determined using the Shorthand Method as per the *Public Governance, Performance and* Accountability (Financial Reporting) Rule (FRR) and Commonwealth Entity Financial Statements Guide. The estimate of the present value of the liability takes into account employee attrition rates and pay increases through promotion and inflation.

#### Superannuation

The Authority's employees are members of the Commonwealth Superannuation Scheme (CSS), the Public Sector Superannuation Scheme (PSS), the PSS accumulation plan (PSSap) or other employee nominated superannuation funds.

The CSS and PSS are defined benefit schemes for the Australian Government. The remaining funds are defined contribution schemes. The liability for defined benefits is recognised in the financial statements of the Australian Government and is settled by the Australian Government in due course. This liability is reported in the Department of Finance's administered schedules and notes.

The Authority makes employer contributions to the employees' superannuation schemes at rates determined by an actuary to be sufficient to meet the current cost to the Government. The Authority accounts for the contributions as if these amounts were contributions to defined contribution plans.

The Authority also contributes to a number of complying funds to discharge the Authority's liability in regard to individual employees and the *Superannuation Guarantee (Administration) Act 1992* as well as to facilitate the salary sacrifice options of employees.

The liability for superannuation recognised as at 30 June represents outstanding contributions at the end of the reporting period. This amount is disclosed in Note 2.3B.

# Note 3.2: Key Management Personnel Remuneration

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Authority, directly or indirectly, including any director (whether executive or otherwise) of that Authority. The Authority has determined the key management personnel to include the Minister for Resources and Water, Authority members, the Chief Executive and Portfolio Leads within the Authority and any employee who has acted in one of the Portfolio Lead roles for longer than three months. Key management personnel remuneration is reported in the table below:

	2022	2021
	\$'000	\$'000
Short-term employee benefits	1,977	1,917
Other long-term employee benefits <sup>1</sup>	(36)	65
Post-employment benefits	265	286
Total key management personnel remuneration expenses <sup>2</sup>	2,206	2,268

The total number of key management personnel included in the above table is 15 (2021: 10).

<sup>1</sup> The negative amount is primarily as a result of a decrease in long service leave provisions due to movement in the Government long term bond rate.

<sup>2</sup> The above key management personnel remuneration excludes the remuneration and other benefits of the Portfolio Minister. The Portfolio Minister's remuneration and other benefits are set by the Remuneration Tribunal and are not paid by the entity.

# Note 3.3: Related Party Disclosures

# Related party relationships:

The Authority is an Australian Government controlled entity. Related parties to this entity are Key Management Personnel (as detailed in Note 3.2), Minister for Agriculture and Northern Australia, Minister for the Environment, Cabinet Ministers, Members of the Ministerial Council, the Living Murray Initiatives & River Management Operations joint ventures and other Australian Government entities.

### Transactions with related parties:

Given the breadth of Government activities, related parties may transact with the government sector in the same capacity as ordinary citizens. Such transactions include the payment or refund of taxes, receipt of a Medicare rebate or higher education loans. These transactions have not been separately disclosed in this disclosure note. The Authority does not pay any member of the Ministerial Council for the services they provide to the Authority under the Murray-Darling Basin Agreement.

There were no other transactions with related parties during the 2022 financial year (2021: Nil).

# Managing uncertainties

This section analyses how the Authority manages financial risks within its operating environment.

# Note 4.1: Contingent Assets and Liabilities

There are no contingent assets or liabilities in the current or prior financial year.

# **Quantifiable Contingencies**

There were no estimated contingent liabilities as at 30 June 2022.

# **Unquantifiable Contingencies**

There is one unquantifiable contingent liability that relates to a claim asserting negligence in relation to the Authority and Authority delegates' performance of function under the *Water Act 2007* (Cth). Damages are unquantifiable. The Authority's insurer Comcover has been notified of this claim.

Under Section 239F of the *Water Act 2007,* the liabilities of the Murray-Darling Basin Commission (the Commission) became liabilities of the Authority. These liabilities pertain to the former Commission and include any liability, duty or obligation, whether contingent or prospective; but does not include a liability, duty or obligation imposed by:

- an Act; or
- regulations or other subordinate legislation made under an Act; or
- the Murray-Darling Basin Act 1992 of New South Wales; or
- the Murray-Darling Basin Act 1993 of Victoria; or
- the Murray-Darling Basin Act 1996 of Queensland; or
- the Murray-Darling Basin Act 1993 of South Australia; or
- the former Murray-Darling Basin Agreement.

There were no such unquantifiable contingencies during the 2022 financial year (2021: Nil).

# Accounting policy

Contingent liabilities and contingent assets are not recognised in the statement of financial position but are reported in the disclosure notes. These may arise from uncertainty as to the existence of a liability or asset or represent an asset or liability in respect of which the amount cannot be reliably measured. Contingent assets are disclosed when settlement is probable but not virtually certain and contingent liabilities are disclosed when settlement is greater than remote.

# Note 4.2: Financial Instruments

	2022	2024
	2022	2021
	\$'000	\$'000
Note 4.2: Categories of Financial Instruments		
Financial assets measured at amortised cost		
Cash and cash equivalents	187,422	154,063
Trade and other receivables	12,251	1,918
Total financial assets at amortised cost	199,673	155,981
Total financial assets	199,673	155,981
Financial Liabilities		
Financial liabilities measured at amortised cost		
Trade creditors and accruals	22,202	17,844
Total financial liabilities measured at amortised cost	22,202	17,844
Total financial liabilities	22,202	17,844

# Accounting policy

#### Financial Assets

The Authority classifies its financial assets in the following categories:

a) financial assets at fair value through profit or loss;

b) financial assets at fair value through other comprehensive income; and

c) financial assets measured at amortised cost.

The classification depends on both the Authority's business model for managing the financial assets and contractual cash flow characteristics at the time of initial recognition. Financial assets are recognised when the Authority becomes a party to the contract and, as a consequence, has a legal right to receive or a legal obligation to pay cash and derecognised when the contractual rights to the cash flows from the financial asset expire or are transferred upon trade date.

#### Financial Liabilities

Financial liabilities are classified as either financial liabilities 'at fair value through profit or loss' or other financial liabilities.

The Authority only holds financial instruments carried at amortised cost.

#### Financial Assets at Amortised Cost

Financial assets included in this category need to meet two criteria:

1. the financial asset is held in order to collect the contractual cash flows; and

2. the cash flows are solely payments of principal and interest (SPPI) on the principal outstanding amount.

Amortised cost is determined using the effective interest method.

#### Effective Interest Method

Income is recognised on an effective interest rate basis for financial assets that are recognised at amortised cost.

#### Impairment of Financial Assets

Financial assets are assessed for impairment at the end of each reporting period based on Expected Credit Losses, using the general approach which measures the loss allowance based on an amount equal to lifetime expected credit losses where risk has significantly increased, or an amount equal to 12-month expected credit losses if risk has not increased.

The simplified approach for trade and other receivables is used. This approach always measures the loss allowance as the amount equal to the lifetime expected credit losses.

A write-off constitutes a derecognition event where the write-off directly reduces the gross carrying amount of the financial asset.

#### Financial Liabilities at Amortised Cost

Financial liabilities are recognised and derecognised upon 'trade date'. Financial liabilities, including borrowings, are initially measured at fair value, net of transaction costs. These liabilities are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective interest basis. Supplier payables and accruals are recognised at amortised cost. Liabilities are recognised to the extent that the goods or services have been received (and irrespective of receipt of an invoice).

# Note 4.3: Fair Value Measurements

# Accounting policy

The Authority's assets are held for operational purposes and not held for the purposes of deriving a profit. The current use of all nonfinancial assets is considered their highest and best use.

The Authority's policy is to recognise transfers into and transfers out of fair value hierarchy levels as at the end of the reporting period. There have been no transfers between level 1 and level 2 of the hierarchy during the year.

# Note 4.3: Fair Value Measurements

	Fair value measurements	
	2022	2021
	\$'000	\$'000
ASSETS		
Assets measured at fair value on a recurring basis		
Buildings	3,877	4,870
Other property, plant and equipment	1,762	2,371
Total assets measured at fair value	5,639	7,241
Assets measured at other than fair value, but approximate fair value		
Cash and cash equivalents	187,422	154,063
Trade and other receivables	15,604	4,833
Other non-financial assets	591	468
Total assets measured at other than fair value, but approximate fair value	203,617	159,364
Assets measured at cost		
Right-of-use assets	10,731	13,450
Intangibles	4,843	2,308
Total assets measured at cost	15,574	15,758
Total assets stated in the Statement of Financial Position	224,830	182,363
LIABILITIES		
Liabilities measured at fair value		
Provision for make good	1.100	1,063
Total liabilities measured at fair value	1,100	1,063
I jabilities measured at other than fair value, but approximate fair value		
	22.202	17 044
	22,202	17,044
Lease habilities	11,781	14,228
Employee provisions	10,237	12,120
Other payables	2,060	1,507
Total liabilities measured at other than fair value, but approximate fair value	46,280	45,699
Total liabilities stated in the Statement of Financial Position	47,380	46,762

# Other information

# Note 4.4: Current/Non-current Distinction for Assets and Liabilities

	2022	2021
	\$'000	\$'000
Note 4.4: Current/non-current distinction for assets and liabilities		
Assets expected to be recovered in:		
No more than 12 months		
Cash and cash equivalents	187,422	154,063
Trade and other receivables	15,604	4,833
Prepayments	509	465
Total no more than 12 months	203,535	159,361
More than 12 months		
Buildings	14,514	18,214
Property, plant and equipment	1,856	2,477
Intangibles	4,843	2,308
Prepayments	82	3
Total more than 12 months	21,295	23,002
Total assets	224,830	182,363
Liabilities expected to be settled in:		
No more than 12 months		
Suppliers	22,202	17,844
Other payables	2,060	1,507
Employee provisions	4,211	4,422
Lease liabilities	2,662	2,510
Other provisions	146	-
Total no more than 12 months	31,281	26,283
More than 12 months		
Other provisions	954	1,063
Employee provisions	6,026	7,698
Lease liabilities	9,119	11,718
Total more than 12 months	16,099	20,479
Total liabilities	47,380	46,762

# Note 5: Explanations of Major Budget Variances

Variances are considered to be 'major' if these amounts are core to the Authority's activities and based on the following criteria: • the variance between budget and actual is greater than +/- 10% of the Original Budget for a line item; and • the variance between budget and actual is greater than \$1,000,000; or • an item is below this threshold but is considered important for the reader's understanding or is relevant to an assessment of the discharge of accountability and to an analysis of the Authority's performance.

#### The budget is not audited.

Budget Variance Explanation	Affected statements and line
	items
The Authority experienced fluctuations in its expenditure in comparison to the Original Budget due to the complex	Statement of Comprehensive
nature of the joint programs. This complexity reflects a high level of risk associated with capital construction and	Income:
environmental projects.	- Suppliers
	- Grants
The joint program variance to the budget estimate was primarily due to the underspends relating to the State	- Contribution from Jurisdictions
Constructing Authorities (SCA). These items are heavily reliant on the capacity of each SCA to deliver routine	- Employee Benefits
maintenance and key construction and planned maintenance projects which can be impacted by procurement issues,	
environmental conditions, access to construction sites and technical resource availability. Underspends by SCA's are	Statement of Financial Position:
mostly related to delays in the completion of construction and maintenance projects and will require a carryover of	- Cash and cash equivalents
the unspent funding appropriation. In addition, underspends in the joint programs were also due to delay in budget	- Suppliers
approvals, COVID-19 related restrictions and impacts arising from the global business interruption which:	<ul> <li>Other payables</li> </ul>
	<ul> <li>Employee provisions</li> </ul>
- prevented timely procurement of resources.	<ul> <li>Trade and other receivables</li> </ul>
- delayed delivery of vehicles, plant and equipment from overseas and its flow on impact on the activities dependent	
upon these items.	Cash Flow Statement:
- limited availability of key building material such as steel and timber.	- Net GST received
- limited access to appropriate resources to undertake a number of construction activities across various sites	- Suppliers
particularly where cross state border travel was required.	- Grants
During 2021-22, there were delays in the completion of the following construction projects as described below:	
- the condition of the Hume trash rack and its interface with the Hume irrigation outlet Bell mouth & penstock repair	
the line and transport due to project example vity and delivery issues	
- the nume gate transporter due to project complexity and derivery issues.	
- endournee associated with the complexity of the score of the Dartmouth Supervisory Control and Data Acquisition	
- orialisinges associated with the complexity of the scope of the Darthouth Supervisory control and Data Acquisition (SCADA) project	
- Mildura-Merbein Salt Interception Scheme planned maintenance due to delays to approvals and complexity of	
scope definition.	
The underspend on the above projects is offset by additional expenditure on:	
- Planned maintenance on the New South Wales and Victorian salt interception schemes.	
- The approved environmental watering event on the Chowilla floodplain.	
- Dredging at the Murray mouth.	
Revenue from contributions from jurisdictions is lower than budgeted due to some jurisdictions utilising an offset	
option from prior year underspends. Additionally, quarter four joint program contributions were owed from some	
states at balance date, impacting trade receivables.	
	l
For 2021-22 the Authority was allocated operating and capital funding for the Integrated River Modelling Uplift	Statement of Comprehensive
(IRMU) project.	Income:
	- Supplier
Extensive consultation with the jurisdictions and extensive procurement processes delayed the commencement of	
the IRMU project.	Statement of Financial Position:
	- Cash and cash equivalents
	- Intangibles
	Cash Flow Statement:
	Durchase of intendible accete

Note 5: Explanations of Major Budget Variances - continued	
Funding was provided to the Authority for the South Australian Riverland Floodplains Integrated Infrastructure Program (SARFIIP), which was budgeted to be spent in 2021-22.	Statement of Comprehensive Income: - Grants
A number of factors have impacted the delivery of SARFIIP, including, but not limited to, the availability of contractors, delays in the recruitment of staff and COVID-19 related restrictions on community and stakeholder meetings.	Statement of Financial Position: - Cash and cash equivalents
The Authority received funding from MOU arrangements with Department of Agriculture, Water, and the Environment (DAWE) and other Government agencies during the year which were not in the 2021-22 Budget. These include: - Sustainable Diversion Limit Adjustment Mechanism (SDLAM) Reconciliation - Barmah Choke Feasibility Study	Statement of Comprehensive Income: - Other revenue Statement of Financial Position:
Due to the wet year higher releases of water from the water storages has resulted in increased hydropower generation revenue.	- Cash and cash equivalents Cash Flow Statement: - Other cash received

# Note 6: Restructuring

# Note 6: Restructuring

2022 Water compliance function

Department of Agriculture, Water and the Environment (DAWE)<sup>1</sup>

	\$'000
FUNCTIONS RELINQUISHED	
Assets relinquished	
Cash and cash equivalents	518
Total assets relinquished	518
Liabilities relinquished	
Employee provisions	518
Total liabilities relinquished	518
Net (assets)/liabilities relinquished	-

<sup>1</sup>On 24 June 2021, *the Water Legislation Amendment (Inspector-General of Water Compliance and Other Measures) Bill 2021* was passed by the Commonwealth Parliament. This Bill amended the *Water Act 2007* to establish the role of an independent Inspector-General of Water Compliance (IGWC) within the DAWE to monitor, and provide independent oversight of, water compliance. The IGWC assumed the water compliance function from the Autority from 1 July 2021.

As part of this Machinery of Government (MoG) change, a total of 14 staff and related leave entitlements were transferred from the Authority to the DAWE.

The effective date of the transfer of assets and liabilities was 4 August 2021. The Authority was requested by the DAWE to deliver the compliance function during the transition period from 1 July 2021 to the transfer date. The expenditure the Authority incurred during this period in respect of the water compliance function of \$444,629 was recovered from the DAWE as part of the transition agreement.



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# Glossary

# Australian National Committee on Large Dams

An incorporated voluntary association of organisations and individual professionals with an interest in dams in Australia.

# **Barmah Choke**

A narrow section of the River Murray that constrains the volume of water that can pass during major floods. During floods, large volumes of water are temporarily banked up behind the Barmah Choke, flooding the Barmah-Millewa Forest wetland system.

## Barrages

Five low and wide weirs built at the Murray Mouth in South Australia to reduce the amount of sea water flowing in and out of the mouth due to tidal movement, and to help control water levels in the Lower Lakes and River Murray below Lock 1 at Blanchetown, South Australia.

# Baseline

Conditions regarded as a reference point for the purpose of comparison.

# **Baseline diversion limit**

The baseline limit of take from a sustainable diversion limit resource unit.

# **Basin governments**

The Australian Government and the governments of New South Wales, Victoria, Queensland, South Australia and the Australian Capital Territory.

### **Basin states**

New South Wales, Victoria, Queensland, South Australia and the Australian Capital Territory.

#### Basin water resources

Water resources within or beneath the Murray–Darling Basin, except for resources that are prescribed by the regulations and groundwater that forms part of the Great Artesian Basin.

# Cap (the Cap on diversions)

A limit, implemented in 1997, on the volume of surface water that can be diverted from rivers for consumptive use. Under the Basin Plan, the Cap is replaced by long-term average sustainable diversion limits.

# Connectivity

Connections between natural habitats, such as between a river channel and adjacent wetland areas. Connectivity is a measure or indicator of whether a water body (river, wetland, floodplain) has water connections or flow connections to another body.

# Constraints

Anything that affects the delivery of water for the environment. Constraints can be physical, such as low-lying bridges and river channel capacity; or operational, such as river rules or operating practices that affect when and how much water can be delivered.

# Conveyance water

The water needed to physically run the river system. Extra water must then be supplied on top of the conveyance water to meet deliveries along the river system. The conveyance reserve is water set aside for the next year to minimise the risk of not having enough conveyance water. Water is set aside water for conveyance and critical human needs to safeguard fundamental water requirements during a drought more severe than the millennium drought.

# Critical human water needs

Under the *Water Act 2007* (the Water Act), the minimum amount of water required to meet core requirements of communities dependent on Basin water resources. The definition also includes non-human requirements that, if not met, would cause prohibitively high social, economic or national security costs.

# Cultural flows (or cultural water flows)

Water entitlements legally and beneficially owned by the Aboriginal Nations of the Murray–Darling Basin. They are of sufficient and adequate quantity and quality to improve the spiritual, cultural, environmental, social and economic conditions of Aboriginal people.

# Electrical conductivity (EC)

A unit of measurement for electrical conductivity (1 EC = 1  $\mu$ S/cm) measured at 25 degrees Celsius. It is commonly used as an indicator of water and soil salinity (salt concentration). Water and soil salinity levels are measured by passing an electrical current between the two electrodes of a salinity meter. EC is influenced by the concentration and composition of dissolved salts. Salts increase the ability of a solution to conduct an electric current, so a high EC indicates a high salinity level. Fresh water above 800 EC becomes marginal for drinking; above 1,600 EC it is brackish; and above 4,800 EC it is saline.

# Entitlement (or water entitlement)

The volume of water authorised to be taken and used by an irrigator or water authority. It includes bulk entitlements, environmental entitlements, water rights, sales water and surface water and groundwater licences.

# **Environmental flow**

Any river flow pattern provided with the intention of maintaining or improving river health.

# **Environmental water**

Water used to achieve environmental outcomes, including benefits to ecosystem functions, biodiversity, water quality and water resource health.

# Environmental water requirement

The amount of water needed to meet an ecological or environmental objective.

# Fishway

A structure that provides fish with passage past an obstruction in a stream.

# Flow

The movement of water-the rate of water discharged from a source, given in volume with respect to time.

# Flow event

A single occurrence of water flow in a river, sometimes required to achieve environmental targets. A series of flow events comprises a flow history.

## Groundwater

Water occurring naturally below ground level (in an aquifer or otherwise).

# Held environmental water

Water that is available under a water access right, a water delivery right or an irrigation right for the purpose of achieving environmental outcomes.

# Inflow

The source of the water that flows into a specific body of water. For a lake, the inflow could be a stream or river; for a stream or river, the inflow could be rain.

# Irrigator

An irrigator is a primary producer who uses river water to irrigate crops or water livestock. Irrigation infrastructure operator An irrigation infrastructure operator owns or operates water service infrastructure for delivering water for the primary purpose of irrigation.

# Modelling

Application of a mathematical process or simulation framework (for example a mathematical or econometric model) to describe various phenomena and analyse the effects of changes in some characteristics on others.

# Murray Lower Darling Rivers Indigenous Nations (MLDRIN)

Confederation formed in 1998 of Indigenous Nations from the southern part of the Basin. It comprises representatives of the Barapa Barapa, Dhudhuroa, Dja Dja Wurrung, Latji Latji, Maraura, Mutti Mutti, Nari Nari, Ngarrindjeri, Ngaywang, Ngintait, Ngunawal, Nyeri Nyeri, Tatti Tatti, Taungurung, Wadi Wadi, Wamba Wamba, Waywurru, Wegi Wegi, Wergaia, Wiradjuri, Wolgalu, Wotjabaluk, Yaitmathang and Yita Yita.

# Northern Basin Aboriginal Nations (NBAN)

Confederation formed in April 2010 that comprises Aboriginal Nation representatives from the northern part of the Basin. It comprises Traditional Owner nominated representatives from the Barunggam, Bidjara, Bigambul, Budjiti, Euahlayi, Githabul, Gomeroi, Gunggari, Gwamu (Kooma), Jarowair, Kambuwal, Kunja, Kwiambul, Mandandanji, Mardigan, Murrawarri, Ngemba, Ngiyampaa, Wailwan and Wakka Wakka Nations.

# **Ramsar Convention**

The Convention on Wetlands of International Importance, an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.

# Regulated

A water system in which water is stored and/or flow levels are controlled using structures such as dams and weirs.

# Salt interception schemes (SIS)

Large-scale groundwater pumping and drainage projects that intercept saline groundwater flowing into rivers and dispose of the saline waters by evaporation and aquifer storage at more distant locations.

# Surface water

Includes water in a watercourse, lake or wetland, and any water flowing over or lying on the land after having precipitated naturally or risen to the surface naturally from underground (see section 4 of the Water Act).

# Sustainable diversion limit (SDL)

The maximum long-term annual average quantity of water that can be taken, on a sustainable basis, from the Basin water resources as a whole, and the water resources, or particular parts of the water resources, of each water resource plan area.

# Sustainable diversion limit adjustment mechanism (SDLAM)

Basin Plan provision that allows for adjustment of the sustainable diversion limit under certain circumstances.

# Take [water]

Removal of water from, or reduction in flow of water into, a water resource.

# Water accounting

A systematic process of identifying, recognising, quantifying, reporting and assuring information about water, the rights or other claims to water, and the obligations against water.

# Water access licence

Water access licences entitle licence holders:

- to specified shares in the available water within a particular water management area or water source (the share component)
- to take water at specified times, rates or circumstances from specified areas or locations (the extraction component).

# Water allocation

The water to which the holder of a water access licence is entitled from time to time under licence, as recorded in the water allocation account for the licence.

# Abbreviations

ACCC	Australian Competition and Consumer Commission
ACIAR	Australian Centre for International Agricultural Research
ACSEES	Advisory Committee on Social, Economic and Environmental Sciences
APS	Australian Public Service
BCC	Basin Community Committee
BOC	Basin Officials Committee
ВоМ	Bureau of Meteorology
BSM2030	Basin Salinity Management 2030
BPIC	Basin Plan Implementation Committee
CEWH	Commonwealth Environmental Water Holder
CEWO	Commonwealth Environmental Water Office
CSIRO	Commonwealth Scientific and industrial Research Organisation
DAWE	(Former Australian Government) Department of Agriculture, Water and the Environment [from 1 July 2022 the Department of Agriculture, Fisheries and Forestry]
DCCEEW	Department of Climate Change, Energy, the Environment and Water
EWC	Environmental Water Committee
FNEWG	First Nations Environmental Water Guidance project
GL	gigalitre (one billion litres)
GW	groundwater
HEW	held environmental water
IAC	(Compliance) Independent Assurance Committee
IGA	Intergovernmental Agreement on Implementing Water Reform in the Murray Darling Basin
IGWC	Inspector-General of Water Compliance
IRORG	Independent River Operations Review Group
КРІ	key performance indicator
MDBA/ the Authority	Murray-Darling Basin Authority - the agency/the 7-member Authority
MD-WERP	Murray-Darling Water and Environment Research Program

Ministerial Council	Murray-Darling Basin Ministerial Council
ML	megalitre (one million litres)
MLDRIN	Murray Lower Darling Rivers Indigenous Nations
NBAN	Northern Basin Aboriginal Nations
NBEWG	Northern Basin Environmental Watering Group
NBPC	Northern Basin Project Committee
OECD	Organisation for Economic Co-operation and Development
PGPA Act	Public Governance, Performance and Accountability Act 2013 (Cth)
PwC	PricewaterhouseCoopers
RAP	Reconciliation Action Plan
REO	Regional Engagement Officer
RMOC	River Murray Operations Committee
RMWQMP	River Murray Water Quality Monitoring Program
SCBEWC	Southern Connected Basin Environmental Watering Committee
SCC	Strengthening Connections Committee
SDL	sustainable diversion limit
SDLAM	SDL adjustment mechanism
SW	surface water
WQAP	Water Quality Advisory Panel
WRP	water resource plan

# Annual report requirements

PGPA Rule reference	Part of report	Description	Requirement		
17BE	Contents of the annual report				
17BE(a)	14	Details of the legislation establishing the body	Mandatory		
17BE(b)(i)	14	A summary of the objects and functions of the entity as set out in legislation	Mandatory		
17BE(b)(ii)	14, 23	The purposes of the entity as included in the entity's corporate plan for the reporting period	Mandatory		
17BE(c)	14, 61	The names of the persons holding the position of responsible minister or responsible ministers during the reporting period, and the titles of those responsible ministers	Mandatory		
17BE(d)	80	Directions given to the entity by the minister under an Act or instrument during the reporting period	lf applicable, mandatory		
17BE(e)	80	Any government policy order that applied in relation to the entity during the reporting period under section 22 of the Act	lf applicable, mandatory		
17BE(f)	80	Particulars of non-compliance with:	If applicable,		
		<ul> <li>a direction given to the entity by the minister under an Act or instrument during the reporting period; or</li> </ul>	mandatory		
		<ul> <li>b. a government policy order that applied in relation to the entity during the reporting period under section 22 of the Act</li> </ul>			
17BE(g)	22-55	Annual performance statements in accordance with paragraph 39(1)(b) of the Act and section 16F of the rule	Mandatory		
17BE(h), 17BE(i)	75	A statement of significant issues reported to the minister under paragraph 19(1)(e) of the Act that relates to non-compliance with finance law and action taken to remedy non-compliance	If applicable, mandatory		
17BE(j)	137-138	Information on the accountable authority, or each member of the accountable authority, of the entity during the reporting period	Mandatory		
17BE(k)	68	Outline of the organisational structure of the entity (including any subsidiaries of the entity)	Mandatory		

PGPA Rule reference	Part of report	Description	Requirement
17BE(ka)	18, 86-87	Statistics on the entity's employees on an ongoing and non-ongoing basis, including the following:	Mandatory
		a. statistics on full-time employees;	
		b. statistics on part-time employees;	
		c. statistics on gender;	
		d. statistics on staff location	
17BE(I)	16	Outline of the location (whether or not in Australia) of major activities or facilities of the entity	Mandatory
17BE(m)	73	Information relating to the main corporate governance practices used by the entity during the reporting period	Mandatory
17BE(n), 17BE(o)	N/A	For transactions with a related Commonwealth entity or related company where the value of the transaction, or if there is more than one transaction, the aggregate of those transactions, is more than \$10,000 (inclusive of GST):	If applicable, mandatory
		<ul> <li>a. the decision-making process undertaken by the accountable authority to approve the entity paying for a good or service from, or providing a grant to, the related Commonwealth entity or related company; and</li> </ul>	
		<ul> <li>b. the value of the transaction, or if there is more than one transaction, the number of transactions and the aggregate of value of the transactions</li> </ul>	
17BE(p)	4-9	Any significant activities and changes that affected the operation or structure of the entity during the reporting period	If applicable, mandatory
17BE(q)	79	Particulars of judicial decisions or decisions of administrative tribunals that may have a significant effect on the operations of the entity	If applicable, mandatory
17BE(r)	79	Particulars of any reports on the entity given by:	If applicable,
		a. the Auditor-General (other than a report under section 43 of the Act); or	mandatory
		b. a Parliamentary Committee; or	
		c. the Commonwealth Ombudsman; or	
		d. the Office of the Australian Information Commissioner	
17BE(s)	N/A	An explanation of information not obtained from a subsidiary of the entity and the effect of not having the information on the annual report	If applicable, mandatory

PGPA Rule reference	Part of report	Description	Requirement
17BE(t)	N/A	Details of any indemnity that applied during the reporting period to the accountable authority, any member of the accountable authority or officer of the entity against a liability (including premiums paid, or agreed to be paid, for insurance against the authority, member or officer's liability for legal costs)	If applicable, mandatory
17BE(taa)	75-78	The following information about the audit committee for the entity:	Mandatory
		<ul> <li>e. a direct electronic address of the charter determining the functions of the audit committee;</li> </ul>	
		f. the name of each member of the audit committee;	
		<ul> <li>g. the qualifications, knowledge, skills or experience of each member of the audit committee;</li> </ul>	
		<ul> <li>h. information about each member's attendance at meetings of the audit committee;</li> </ul>	
		i. the remuneration of each member of the audit committee	
17BE(ta)	87-89	Information about executive remuneration	Mandatory
17BF	Disclosure requirements	for government business enterprises	
17BF(1)(a)(i)	N/A	An assessment of significant changes in the entity's overall financial structure and financial conditions	If applicable, mandatory
17BF(1)(a)(ii)	N/A	An assessment of any events or risks that could cause financial information that is reported not to be indicative of future operations or financial conditions	If applicable, mandatory
17BF(1)(b)	N/A	Information on dividends paid or recommended	If applicable, mandatory
17BF(1)(c)	N/A	Details of any community service obligations the government business enterprise has including:	If applicable, mandatory
		<ul> <li>an outline of actions taken to fulfil those obligations; and</li> </ul>	
		<ul> <li>an assessment of the cost of fulfilling those obligations</li> </ul>	
17BF(2)	N/A	A statement regarding the exclusion of information on the grounds that the information is commercially sensitive and would be likely to result in unreasonable commercial prejudice to the government business enterprise	If applicable, mandatory

# Other legislative requirements

Legislation	Part of report	Description	Requirement		
17BE	Contents of the annual report				
Work Health and Safety Act 2011	84-85	Work health and safety	If applicable,		
		Report on matters mentioned in s 4 (2)	mandatory		
Commonwealth Electoral Act 1918	80	Advertising and market research	If applicable,		
		Report on s 311A Annual returns of income and expenditure of Commonwealth Departments to:	mandatory		
		a. advertising agencies			
		b. market research organisations			
		c. polling organisations			
		d. direct mail organisations			
		e. media advertising organisations;			
		and the persons or organisations to whom those amounts were paid.			
Environmental Protection and Biodiversity Conservation Act 1999	80-82	Ecologically sustainable development and environmental performance	lf applicable, mandatory		
		Report on s 516A Annual reports to deal with environmental matters			

# Details of accountable authority during the reporting period 2021-22

Name	Qualifications of the accountable authority	Experience of the accountable authority	Position title/ Position held Executive/ Non- Executive	Period as the accountable authority or member within the reporting period		
				Date of commence- ment	Date of cessation	Number of meetings of accountable authority attended
Mr Andrew McConville	MSC (Ag Econ), University of Oxford, BAgEc (Hons) Agricultural Marking and Policy, University of New England	Prior to taking on the Chief Executive role at the MDBA Mr McConville was Chief Executive of the Australian Petroleum Production and Exploration Association, a position he occupied since April 2019. Before that, he worked for more than a decade with Syngenta, one of the world's leading agribusinesses. Earlier in his career, Mr McConville ran his own agribusiness public relations consultancy for almost 5 years and worked as Head of Corporate Affairs for Business at the National Australia Bank.	New Chief Executive	19 June 2022	18 June 2026	N/A
Mr Phillip Glyde	BA (Hons), BE	Mr Glyde came to the MDBA from the Department of Agriculture, where he was a deputy secretary. He has been a member of the Australian Public Service since 1980, working in natural resource management, industry and environmental policies for a number of departments. Mr Glyde has also worked overseas with the OECD in Paris and the Department of Environment, Food and Rural Affairs in the United Kingdom.	Chief Executive (retired)/ Executive	4 January 2016	29 August 2021 (official retirement 22 August 2022)	N/A

Name	Qualifications of the accountable authority	Experience of the accountable authority	Position title/ Position held Executive/ Non- Executive	Period as the accountable authority or member within the reporting period		
				Date of commence- ment	Date of cessation	Number of meetings of accountable authority attended
Mr Andrew Reynolds	BE (Hons)	Mr Reynolds has more than 27 years experience in the water industry, managing major water supply infrastructure. Before joining the MDBA he held various roles with Goulburn-Murray Water. His work there included managing the headworks business responsible for 16 large dams and associated infrastructure, delivering several major dam safety upgrades, and leading the business's engineering and scientific resources.	Acting Chief Executive/ Executive	30 August 2021	24 June 2022	N/A
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