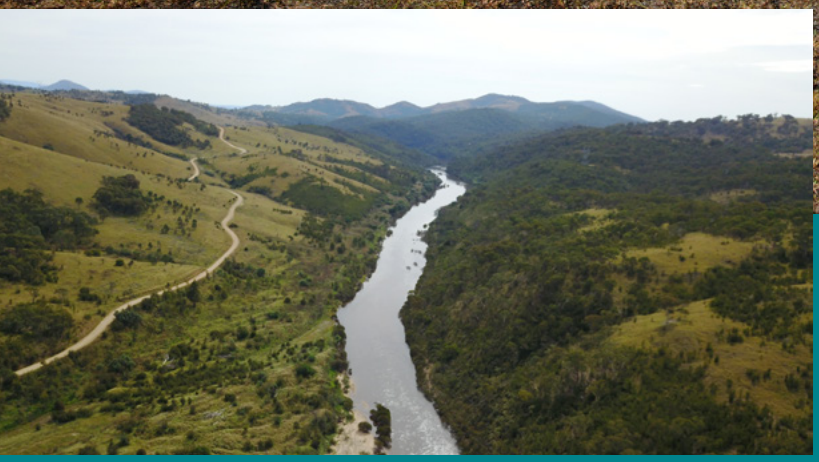
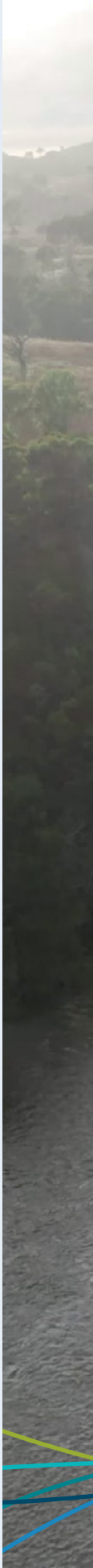


Annual Report 2023–24

ACT and Region Catchment Management Coordination Group



Cover images:

Images of the upper Murrumbidgee River provided by the Environment, Planning and Sustainable Development Directorate.

Photo from the Cool Burn event hosted by the Upper Murrumbidgee Catchment Network and Icon Water, at Icon Water's property, Williamsdale, Southern ACT. Photo credit: Andy Scarano at Instant Andy, May 2024

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Contents

Chair's Foreword

Yuma

I acknowledge the Ngunnawal people as the Traditional Custodians of the ACT and surrounding areas. I recognise their and other Traditional Custodians, connection to and care of, land, water and culture in the upper Murrumbidgee Catchment. I thank these people for sharing their knowledge so this catchment can be better managed. I pay my respect to all Traditional Custodians and acknowledge that they have never ceded sovereignty.

The 2023–24 financial year for the ACT and Region Catchment Management Group (the Coordination Group) has been epic in highlighting its value as a cross-border multijurisdictional body whose members focus on working collaboratively to advance better practice to protect the upper Murrumbidgee River and the catchment overall. In last year's Annual Report, I shared concerns regarding the declining health of this river and its catchment. In this year's report, I am pleased to report that the collective collaborative effort of many people and organisations, including the Coordination Group, has resulted in the Australian Government announcing its *Improving the health of the Upper Murrumbidgee program* which includes over $50 million in funding across a range of measures. See **Case Study 6** on page 49. This time last year, when writing the report, I could not have foreseen such a commitment, which is an important step towards addressing issues that impede having a healthier upper Murrumbidgee River and catchment.

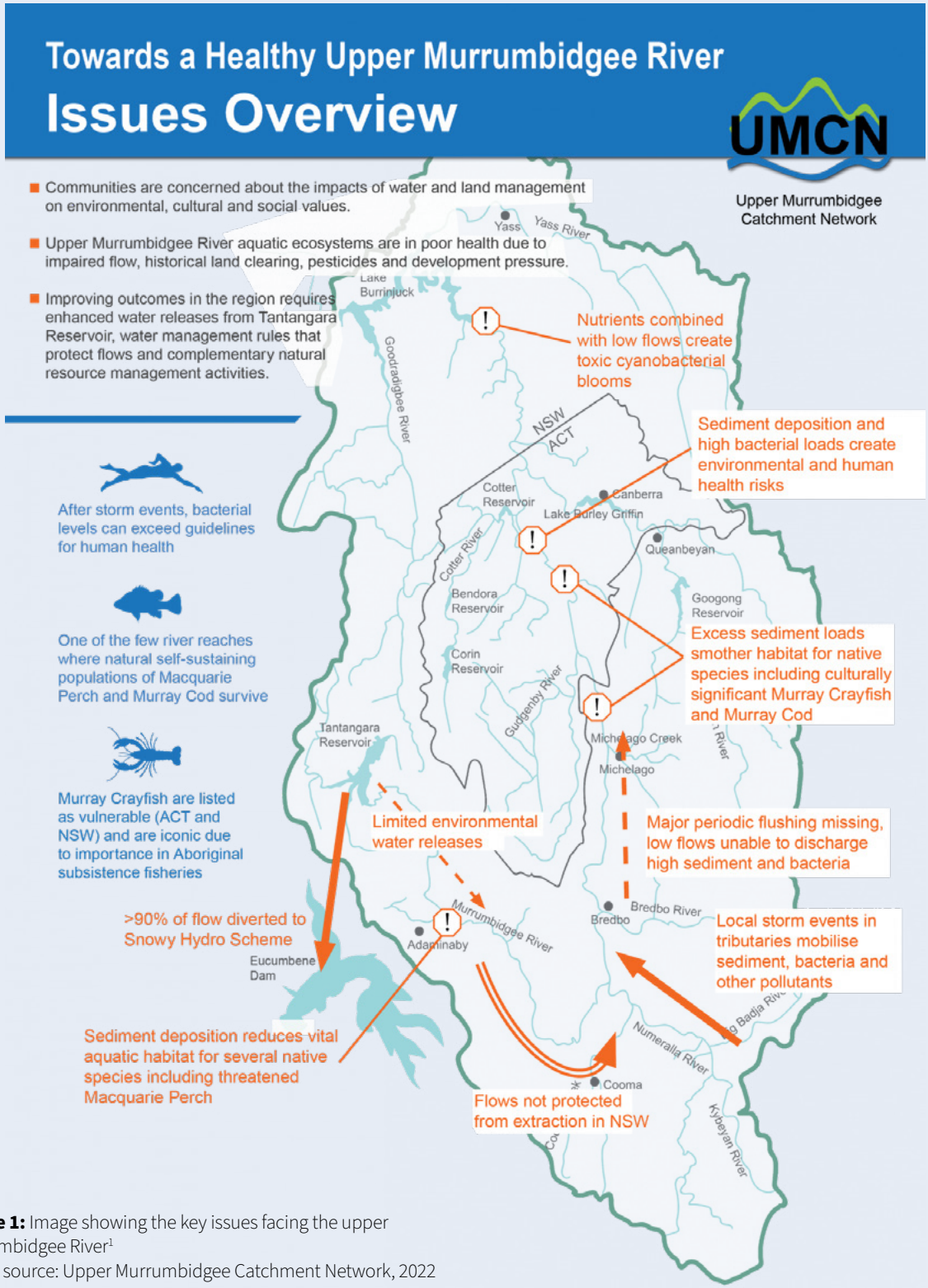


Figure 1: Image showing the key issues facing the upper Murrumbidgee River[1]
Image source: Upper Murrumbidgee Catchment Network, 2022

1 The NSW Department of Climate Change, Energy, Environment and Water - Water Group advised that environmental releases from Tantangara Dam have been protected by NSW for the last year through S324 of the *Water Management Act 2000* orders. The statement that 'flows not protected from extraction in NSW' will be changed in future updates of this diagram. Additionally, the NSW unregulated Water Sharing Plan contains specific rules that only allows extraction to commence above a certain flow volume.

Although the upper Murrumbidgee River's health was a focus at each of the Coordination Group meetings, other matters were progressed, as mentioned in this report that advance us towards achieving our vision in the ACT and Region Catchment Strategy 2016–2046 (the Catchment Strategy).

Government, community, and industry working together to produce a healthy, productive, resilient and liveable catchment region.

Meetings held were:

- **Quarter one** – Meeting #1: held on Wednesday 25 October 2023 at the Snowy Monaro Regional Council (SMRC) office, Cooma.
- **Quarter two** – Meeting #2: held on Thursday 25 January 2024 at ACT Government offices, Dickson, Canberra.
- **Quarter three** – Meeting #3: held on Monday 25 March 2024 at the Queanbeyan-Palerang Regional Council (QPRC) office, Queanbeyan.
- **Quarter four** – Meeting #4: Wednesday 12 June 2024 at ACT Government offices, Dickson, Canberra.

I want to thank members for attending meetings as well as our guests and presenters. These sessions are very productive in sharing knowledge and insights concerning challenges, achievements and progressing actions from the Catchment Strategy. We are very fortunate to have such a diverse and engaged membership who bring expertise in water security and quality management, policy, planning, ecological management and regional development.

Minister Shane Rattenbury attending the Coordination Group's quarterly meeting on 25 January 2024

I thank Minister Rattenbury, the Minister for Water, Energy and Emissions Reduction (the Minister) for his continuing support of the Coordination Group, and for taking the opportunity to meet me and other members. I'd also like to thank the Minister for his strong support to fostering actions that improve the condition of the upper Murrumbidgee River, which includes:

- Considering the advice from the Coordination Group.
- Co-signing letters, with me, to
  - the Commonwealth Shareholder Ministers of Snowy Hydro Limited to ask that priority be given to environmental, social and cultural needs alongside renewable energy productions in the anticipated update of Snowy Hydro's Statement of Expectations (SoE); and
  - the Commonwealth Minister for the Environment and Water seeking a collaborative decision-making approach in the proposed review of the Snowy Water Inquiry Outcomes Implementation Deed (Deed) that is an important part of the *Improving the health of the Upper Murrumbidgee program*.

I would also like to thank the following people for their support to the activities of the Coordination Group:

- Emeritus Professor John Rodger, Chair of the Snowy Advisory Committee for co-chairing the joint workshop on *Setting direction for the review of the SoE and the Deed* on 14 December 2023. I would also like to thank all those who attended the workshop, which thanks to these people was instructive in distilling the key water management issues affecting the Snowy and upper Murrumbidgee rivers and thereby identifying the main directions for the proposed review of Snowy Hydro's SoE and the Deed.
- Dr Danswell Starrs, ACT Office of Water (OoW) for stepping into the role of interim Water Expert from October 2023 to April 2024. Since then, Alex McNee has been appointed as the independent Water Expert and I thank him for taking up this appointment.
- Mr Bradley Bell, ACT OoW for sharing his work on Aboriginal Waterway Assessment (AWA).
- Mr Paul Doyle, NSW Department of Climate Change, Energy, the Environment and Water (NSW DCCEEW); and Andy Lowes, Australian River Restoration Centre (ARRC) and Upper Murrumbidgee Catchment Network (UMCN) Chair, for sharing their knowledge on water, rivers and catchment.
- Mr Wally Bell, from Buru Ngunawal Aboriginal Corporation, for sharing his views and increasing our knowledge of cultural matters, his generosity in doing this is greatly appreciated.
- Dr Paul Wyrwoll, from the Australian National University for his support to the Coordination Group in providing technical advice that offers new directions for considering water matters.
- Dr Siwan Lovett, from the ARRC, for her general support and for her and others in the Centre, undertaking the important community survey on water management in the upper Murrumbidgee River in November 2023. The survey is presented in a style that facilitates an easy understanding of exactly what is important to the community and gives clear directions for better managing the river.
- Mr Dennis Barnes, board members and staff of the Snowy Hydro Limited for giving their time to listen to our views and discuss the complex water matters associated with their activities.

- Mr Peter Horne, from Watertrust Australia, Dr Daryl Fields, BC Hydro Board and Ms Lee Failings, Compass Resource Management, for sharing their knowledge on their experiences in British Columbia using Structured Decision Making – a collaborative process for making complex water management decisions.
- Mr Andy Lowes, Chair of UMCN and staff who provide an important link between the Coordination Group and a broad range of stakeholders and community members.

2023–24 achievement of priorities

All priorities for 2023–24 presented in the Annual Report 2022–23 have been progressed. In addition to the major achievement for the upper Murrumbidgee River and catchment, other priorities of note include:

Delivering the Murray-Darling Basin Plan

The Coordination Group prepared a submission on delivering the Murray-Darling Basin Plan (Basin Plan) to the Department of Climate Change, Energy, the Environment and Water (DCCEEW). The Basin Plan sets the amount of water that can be taken from rivers for industry, agriculture and community use while leaving enough to restore and maintain a healthy environment and river system. In the submission, we asked to increase the quantity and improve the timing, quality and flexibility of water releases from Tantangara Dam to improve environmental outcomes in the upper Murrumbidgee River, with downstream benefits in the southern connected basin. We recommended two options to achieve this outcome and highlighted the required policy changes through revisions to the Deed that values environmental sustainability in the receiving environment, changes to the Snowy Water Licence enabling flexibility in operation, and improvement in measurement and monitoring of water release. A copy of our submission is in **Appendix F**.

Joint Workshop with Snowy Advisory Committee on Directions for the review of the SoE and the Deed

Actions 3, 5, 12, 13 and 14 in the Catchment Strategy

This workshop, held on 14 December 2023, was a significant highlight for me as Chair, and the Coordination Group. The main objectives were to discuss water management issues impacting Snowy and upper Murrumbidgee rivers and identify directions for a review of the SoE and the Deed. Attendees included representatives from ACT and NSW Government water and environment agencies, Ngunnawal, community (UMCN), environmental stakeholders, scientists, and participants with prior experience on Snowy water management. An outcome of the workshop was the development of a Problem Statement that summarises the key issues discussed. The Problem Statement which is provided at **Appendix D** was used as the foundation for developing a work plan to address the key issues, proposed amendments to the Snowy Hydro's SoE and scoping the review of the Deed.

Presentations

Actions 3, 5, 12, 13 and 14 in the Catchment Strategy

Several presentations were made by me as Chair, often with others, or supported by me to raise awareness of the Coordination Group activities. This included the following presentations:

- Aboriginal Waterways Assessment (AWA) Seminars by Mr Bradley Bell, hosted by Antia Brademann UMDR and chaired by me (17 July and 10 November 2023).
- Forgotten River talk with Andy Lowes – University of Canberra (25 August 2023) and the ACT Rural Landholders Association of Farmers (11 December 2023 at Tharwa Town Hall).
- Murray-Darling Basins Board field trip, Tharwa – shared Coordination Group matters (13 September 2023).
- Contested Climate: Water Security, Urban Resilience, and Planning for the National Capital and Beyond – National Festival of Urbanism at AFSA (partnered with University of Sydney's Henry Halloran Research Trust and PIA and UC). Organised and chaired this event which gave a profile to the upper Murrumbidgee River matters (4 October 2023).
- Murray-Darling Basin – Drivers of Change Workshop Canberra (7 and 8 May 2024).
- Australian Water Association Conference – Water Matters – presented on the upper Murrumbidgee River (5 June 2024).
- Presented to the Snowy Hydro Limited Board meeting in Sydney with Mr Andy Lowes, Chair UMCN and Australian River Restoration Centre, and Mr Paul Doyle, Snowy/Upper Murrumbidgee Environmental Water Management Team, NSW DCCEEW (11 June 2024). This was a particularly important presentation to advance future collaborative approaches for improving the health of the upper Murrumbidgee River.
- Attending Snowy Advisory Committee meetings as an observer (various meetings).

Dr Maxine Cooper, Coordination Group Chair, Andy Lowes (UMCN) and Paul Doyle (NSW DCCEEW) after a successful meeting with the Snowy Hydro Limited Board members in Sydney on 11 June 2024. Photo credit: Andy Lowes.

Stakeholder and Community Engagements

Actions 7 and 9 in the Catchment Strategy

Coordination Group members and the UMCN, which is funded by the group, were active in the community this year. This included the following activities.

- UMCN, hosted several educational events, including two site visits to the Icon Water Treatment Plant and Ginninderry Conservation Trust conservation corridor, co-hosted a Cool Burn with Icon Water and Buru Ngunawal Aboriginal Corporation and two online presentations related to community voice and catchment plans. Further details are available in the UMCN Annual Report in **Appendix A**.

- The ARRC undertook a range of activities to increase awareness of the declining health of the upper Murrumbidgee River, including conducting a survey on Community Voice — The Forgotten River. Responses to the community survey on connection to the river demonstrate very strong personal connections to the river associated with: nature and biodiversity appreciation; recreational activities; tranquillity and reflection (wellbeing); family and community experience; unique and personal memories; and the need for water security. More information is provided at **Case Study 1** on page 29.
- Icon Water has been running a community engagement program **Our Water Future**, to understand the community's understanding and views on water security matters. More information is provided at **Case Study 5** on page 46.

The Coordination Group welcomed regular contributions of knowledge and expertise from guest attendees throughout the year which are highlighted under the Catchment Strategy themes in this report.

2024–25 proposed priorities

For 2024–25, I look forward to working with the Coordination Group to:

- review and refresh the *ACT and Region Catchment Strategy*, 2016–46, which provides a guiding framework for the activities of the Coordination Group
- continue to support the roles and work undertaken by peak stakeholder groups, volunteers, landowners, and managers, including continued funding for the UMCN (Action 7 in the Catchment Strategy)
- build community understanding about catchment health through undertaking a *Social Expectations Survey and Engagement Program* (Action 9 in the Catchment Strategy)
- continuing our efforts to shape water planning policies and initiatives to foster healthy regional waterways, especially in relation to the upper Murrumbidgee River and Catchment (Actions 3, 5, 6, 12, 13, 14).

Details of priorities for 2024–25 are outlined in section 5 on page 52.

As we look ahead, our focus remains on fostering collaboration, promoting innovative solutions, and ensuring that our catchments are managed sustainably for future generations.

I would like to extend my gratitude to all Coordination Group members, including those who have left the group in 2023–24, Mr Wally Bell for being an observer, and our partner organisations and community stakeholders. I value your dedication and contributions over the past year. Together, we are making a difference in improving the health and resilience of the ACT and region's waterways and catchments.

Finally, I thank Rinzin Lhamo for the invaluable and very efficient work she does as our Secretariat. I also thank other staff of the ACT OoW, for the strong support they give to the Coordination Group, Ryan Breen, Dr Stephanie Courtney-Jones, Hannah Evans and Maria Mangeruca.

Yarra

Dr Maxine Cooper
Independent Chair
September 2024

1. Background

The Coordination Group is a statutory advisory group established under the *Water Resources Act 2007* to facilitate improved governance and coordination of water catchment activities within the ACT and surrounding region.

The Coordination Group was established on an interim basis on 25 February 2015. On 4 August 2015, the ACT Legislative Assembly passed the *Water Resources (Catchment Management) Amendment Act 2015*, which amended the *Water Resources Act 2007*, and established the Coordination Group as a statutory body.

The Coordination Group's objectives are advanced through the following inter–jurisdictional agreements:

- ACT – NSW Memorandum of Understanding (MoU) for Regional Collaboration (first signed in 2011, recommitted to in 2016 and again in 2020);[2]
- Canberra Region Joint Organisation (CRJO) – ACT MoU (first signed in 2016 and recommitted to in 2018);[3] and
- ACT – Queanbeyan Palerang Regional Council (QPRC) Letter of Intent (first signed in 2016, recommitted to in 2023).[4]

This report outlines the activities of the Coordination Group from 1 July 2023 to 30 June 2024, and fulfils the Coordination Group's obligations under Section 67D of the *Water Resources Act 2007.*

Coordination Group functions

The Coordination Group was established to:

- advise the ACT Minister for Water, Energy and Emissions Reduction
- improve coordination, cooperation and direction of effort in catchment management across the ACT and region
- facilitate collaborative problem solving for inter-jurisdiction and inter-agency issues
- provide advice on opportunities to align national, regional and territory investment in the context of integrated catchment management.

2. The ACT - NSW MoU commits to implementing the South East and Tablelands Regional Plan 2036 and strengthens linkages between jurisdictions by optimising regional outcomes and service delivery for the ACT and surrounding Canberra Region. The region includes the local government areas of Bega Valley, Eurobodalla, Goulburn Mulwaree, Hilltops, Queanbeyan Palerang, Snowy Monaro Regional, Snowy Valleys, Upper Lachlan, Wingecarribee and Yass Valley.

3. The CRJO - ACT MoU sets out the terms for the ACT's associate membership in the CRJO. It acknowledges that the proximity of CRJO councils to Canberra and the continuing impact of the nation's capital on the growth and prosperity of CRJO councils. To secure long-term benefits for all involved it is imperative that there be close cooperation and collaboration between the ACT and CRJO councils.

4. The ACT - Queanbeyan Palerang Letter of Intent outlines the principles and priority areas to be progressed between the ACT and Queanbeyan. Priority areas of engagement include collaborating on policy and planning opportunities to consider the management of water, sewage, waste, and renewable energy at a regional scale.

- foster the implementation of the Catchment Strategy
- provide advice on proposed developments in terms of their likely impacts and strategies and actions to mitigate any risk to catchment health
- undertake other matters as determined by the ACT Minister for Water, Energy and Emissions Reduction.

A review of the Coordination Group's functions and membership was undertaken in 2022–23. Changes were made through legislative amendments to the *Water Resources Act 2007* (effective 8 July 2023), which clarified the administrative responsibilities of the OoW relative to those of the EPA and clarified the role of the Coordination Group. Amendments specific to the Coordination Group, relating to the functions and membership were implemented in 2023–24 and the Terms of Reference were updated to reflect changes.

The amendments to the *Water Resources Act 2007* has augmented the group's function to include:

- advising the Director-General, Environment, Planning and Sustainable Development Directorate on matters relating to water catchment management in the ACT and the Australian Capital water catchment region
- allowing the Minister to direct the Coordination Group to provide advice about a stated water catchment management matter.

The Coordination Group is committed to improving the governance of catchment management within the ACT and surrounding region. It works for the long-term benefit of the ACT and region catchments and the people who reside in them.

It achieves this by:

- being a responsive, dynamic and representative body that works in a fair, open and collaborative manner
- taking a holistic approach to understanding and managing the catchment
- promoting a whole-of-catchment and whole-of-government approach to improving the catchment's health in the long term, using the best available science and community engagement to support its work.

This report outlines the activities of the Coordination Group from 1 July 2023 to 30 June 2024, and fulfils the Coordination Group's obligations under Section 67D of the *Water Resources Act 2007*.

Geographical area of interest

The Coordination Group's geographical area of interest is the upper Murrumbidgee Catchment,[1] which comprises the ACT and parts of the local government areas of:

- Snowy Monaro Regional Council (SMRC)
- Queanbeyan-Palerang Regional Council (QPRC)
- Yass Valley Council.

The upper Murrumbidgee Catchment covers about 14,000 km^2, with its headwaters originating above Adaminaby and flowing through to Burrinjuck Dam.

1 Upper Murrumbidgee Catchment is synonymous with the term 'Australian Capital Catchment Region'. The *Water Resources Act 2007* uses this latter term for the catchment area of the Murrumbidgee River upstream of Burrinjuck Dam which is the area of interest of the Coordination Group. Upper Murrumbidgee Catchment is used in this report as it is well known and understood.

Map showing the Coordination Group's geographical area of interest, the upper Murrumbidgee Catchment.

2. Membership

The amendments to the *Water Resources Act 2007* removed specificity around Coordination Group membership (Section 67E) and replaced it with provisions for the Minister to appoint up to 12 members to deliver against the Coordination Group functions. This approach allows membership diversification and adaptability to reflect an evolving catchment management agenda.

The refreshed membership includes an independent Chair, Water Expert and representatives from:

- ACT Environment, Planning and Sustainable Development Directorate
- National Capital Authority
- Icon Water
- NSW Government
- NSW South-East Local Land Services
- local governments:
  - Queanbeyan-Palerang Regional Council
  - Snowy Monaro Regional Council
  - Yass Valley Council
- Traditional Custodian*
- community

**Appointment of the Traditional Custodian representative will be progressed in 2024–25.*

Details of the members are provided below:

ACT and Region Catchment Management Coordination Group – Chair

Dr Maxine Cooper

The role of the Chair is to independently facilitate a collaborative process between jurisdictions to ensure the best outcomes are achieved. Dr Cooper, an adjunct Professor at the University of Canberra, has extensive leadership experience, having held key positions, including ACT Auditor-General, ACT Commissioner for Sustainability and the Environment, and Chair and Executive Director of the ACT Water Security Taskforce. Dr Cooper is also the independent Chair of Landcare ACT and the Deputy Chair of the National Landcare Network.

ACT and Region Catchment Management Coordination Group – Community Representative

Mr Andy Lowes

The Community Representative's role within the Coordination Group is to contribute to discussions about the role and work undertaken by peak stakeholder groups, volunteers, community groups, property owners and land managers in maintaining and improving the region's catchments and waterways. Mr Lowes was appointed to the role of independent Community Representative in December 2023 and brings a wealth of knowledge in water planning and management and experience in community engagements. Mr Lowes is currently the Chair of UMCN and works as the Program Manager for the ARRC.

ACT and Region Catchment Management Coordination Group – Water Expert

Mr Alex McNee

The Water Expert's role within the Coordination Group is to contribute to the scientific and technical understanding of members on a broad range of catchment and water management issues and provide insight into water planning, water quality and regional water matters. Mr McNee was appointed to the role

of independent Water Expert in May 2024. Mr McNee offers a well-rounded combination of scientific knowledge, applied science, policy development and practical application in the field of natural resource and water management.

ACT Environment, Planning and Sustainable Development Directorate

Deputy Director-General, Environment, Water and Emissions Reduction, Mr Geoffrey Rutledge

The Environment, Planning and Sustainable Development Directorate (EPSDD) supports the ACT Government's interests in water resource management, environmental protection and conservation, and natural resources. It has responsibility for strategic water policy development within the urban and natural environments, inter-governmental engagement on national and Murray-Darling Basin water reforms and delivering on the Catchment Strategy.

Icon Water

Managing Director, Mr Ray Hezkial – Proxy is Senior Advisor, Finance and Strategy, Mr Nic Morgan

Icon Water owns and operates the ACT's network of dams for drinking water, water treatment plants, sewage treatment plants, reservoirs, water and sewage pumping stations, mains and other associated infrastructure. It provides water and sewerage services to the ACT and bulk water to Queanbeyan. Icon Water's interests in healthy catchments include the region's security, quality and sustainability of water resources for various uses and minimising the impact of its network on the region's waterways. Icon Water provides the Coordination Group with considerable insight into the issues associated with the Region's drinking water supply and its quality and security.

National Capital Authority

Chief Executive, Ms Karen Doran – Proxies are Chief Operating Officer, Mr Hamid Heydarian and Acting Director, Lake and Dam, Mr David Wright

The National Capital Authority (NCA) manages many of Canberra's national, iconic and culturally significant landscapes and attractions, including Lake Burley Griffin and the surrounding lands. It is keen to see national land and water bodies used and enjoyed by visitors and Canberra residents for various recreational uses. It aims to ensure an appropriate balance between public access to national land and the protection of national assets. The NCA provides a much-appreciated national perspective to the Coordination Group's discussions.

NSW Department of Climate Change, Energy, the Environment and Water

Director, Mr Peter Hyde – Proxy is Director, Regional Water Strategies, Southern and Coastal, Ms Kristianne Anderson

The NSW DCCEEW represents the NSW Government's interest in the ACT region catchment. It is responsible for water security and managing NSW water resources, including surface and groundwater management. The NSW DCCEEW also ensures equitable sharing of surface and groundwater resources, and that water entitlements and allocations are secure and tradeable. It is working towards delivering on the NSW Government's water goals through planning, policy and regulation and leading negotiations with the Commonwealth, including the Murray-Darling Basin Authority and other jurisdictions.

NSW South East Local Land Services

General Manager, Mr Luke Pope – Proxy is Manager, Delivery Support, Ms Rebecca Bradley

The South East Local Land Services (LLS) brings agricultural production advice, biosecurity,

natural resource management and emergency management into a single organisation. Its services add value to local industries, enhances natural resources, protects industries from pests and disease, and helps communities respond to and recover from natural disasters. The South East LLS will ensure the natural assets, local industries, landholders and communities of the surrounding tablelands region are represented in the Coordination Group.

Regional local government members

Queanbeyan-Palerang Regional Council – Deputy Chair

General Manager, Ms Rebecca Ryan – Proxy is Director Infrastructure Services, Mr Mike Duff

Snowy Monaro Regional Council

Manager, Built and Natural Environment, Mr Peter Smith – Proxy is Coordinator, Strategy Development, Ms Gina McConkey.

Yass Valley Council

Chief Executive Officer, Mr Chris Berry – Proxy is Director, Planning and Environment, Ms Julie Costa.

Local government areas

The local government areas of QPRC, SMRC and Yass Valley Council significantly contribute to managing and protecting the region's natural resources.

Local governments undertake a wide range of activities related to catchment management, including developing and implementing land use planning, managing public land and regulating private activities. They play a key role in translating the policies of the Australian and state governments into local and on-ground projects. As such, their input to regional strategic planning, economic development and water management is vital to providing the best outcomes for an inter-jurisdictional catchment.

The Coordination Group wishes to thank the member representatives from the following ACT Government Directorates who exited the Coordination Group ahead of FY 2023–24:

- ACT Emergency Services Agency
- ACT Health Directorate
- Transport Canberra and City Services.

Strategic cross-border advice Chief Minister, Treasury and Economic Development Directorate

Executive Branch Manager, Regional, Infrastructure, Planning and Transport – Dr David Clapham.

Chief Minister, Treasury and Economic Development Directorate (CMTEDD) attends all meetings and provides strategic advice to the Coordination Group on cross-border matters.

Observer

Mr Wally Bell is a Ngunawal Traditional Custodian and Knowledge Holder of his clan group, the Yharr. Wally holds a Cert III in Conservation and Land Management and is certified as a NSW Bushfire Fighter.

Wally holds positions on at least nine recognised organisations such as Buru Ngunawal Aboriginal Corporation, ACT Government, the ACT Government Natural Resource Management Advisory Group.

Wally is actively participating in all aspects of Aboriginal cultural heritage and land management for the area that lies within his ancestral boundary and engages with the wider community on developing an awareness of local Ngunawal Aboriginal culture.

It is in this capacity Wally has attended Coordination Group meetings as an observer and provided advice and information to the group on First Peoples context and cultural values in water management.

3. Resourcing

Secretariat services and support are provided for the Coordination Group on an ongoing basis through the OoW within the Climate Change, Energy and Water Division of the EPSDD.

Members of the Coordination Group cover their own staff time from their respective budgets.

As independently appointed positions, the Chair, the Community Representative and the Water Expert are entitled to receive EPSDD funded honorariums as determined under the *ACT Remuneration Tribunal Determination* **(Determination 18 of 2023)**.

Activities related to the region's catchment management and improvement are supported through the Coordination Group's inter-jurisdictional investment and resourcing framework. Coordination Group members provide funds from their respective budgets into the Coordination Group fund. For 2023–24, total funds of $120,000 were contributed by members. Funds are managed within a holding account by EPSDD.

The Budget Sub-group (the Sub-group), established within the Coordination Group in 2021–22, provides advisory support to the Coordination Group on budget utilisation.

The Sub-group met on 28 June 2024, to review financial status and potential investment opportunities for the Coordination Group. The Sub-group made several recommendations related to investment opportunities in 2024–25 which will form part of the 2024–25 priorities. The Sub-group also highlighted the need for continued funding contributions from existing members and emphasised the importance of exploring investment opportunities that broadly benefit regional areas.

The Coordination Group's financial report for the 2023–24 financial year is in **Appendix G**.

4. 2023–24 Highlights

A key function of the Coordination Group is supporting the implementation of the Catchment Strategy.

The Catchment Strategy aims to improve the coordination, cooperation and collaboration in addressing the catchment management challenges across the multi-jurisdictional catchment.

It identifies 19 Actions that bring government, community and industry together to produce healthy, productive, resilient and liveable catchments.

These 19 Actions are centred on the following five themes

Governance, policy and planning — developing and maintaining a framework for coordinating policy, planning, research and investment.

Communities — acknowledging the outstanding contribution that catchment groups and volunteer programs play in protecting our natural resources, motivating people to connect to their catchment and increasing their capacity to adapt to change.

Regional development — recognising that the catchment is a growth area and strategies are needed to support the region's prosperity with sound catchment management planning principles and technical expertise to support sustainable growth.

Water — putting mechanisms in place to support water security for the ACT and surrounding regions.

Land and biodiversity — supporting biophysical processes that maintain the resilience and health of natural resources essential for thriving communities and ecosystems.

In 2023–24, Coordination Group members continued to undertake significant work to implement the actions identified by the Catchment Strategy.

4.1. Governance, policy and planning

Theme one of the Catchment Strategy is governance, policy and planning. Under this theme, there are six priority actions with the objective that *governance decisions consider the values of stakeholders, the evidence base, and the benefits of cross-jurisdictional collaboration, and are undertaken for the collective, long-term good of the catchment and its residents*. These actions are:

Action 1: Build an inter-jurisdictional decision-making framework related to catchment policy and planning.

Action 2: Establish an inter-jurisdictional investment and resourcing framework.

Action 3: Promote evidence-based decision making for improved healthy catchments.

Action 4: Continue to inform a catchment wide assessment of vulnerability to climate change.

Action 5: Review and align catchment management legislation, regulations, policies and compliance to improve consistency.

Action 6: Align enforcement between NSW and the ACT on catchment management practices.

Governance, policy and planning are an ongoing key focus for the Coordination Group. Implementing these actions ensures that the Coordination Group is supporting cross-jurisdictional collaboration to support the collective, long-term good of the Australian Capital Water Catchment Region and its residents.

A key focus of the Coordination Group in 2023–24 was contributing to the proposed review of the Deed and Snowy Hydro's SoE to ensure priority is given to environmental, social and Cultural needs alongside renewable energy productions.

Recognising the need for direction for the Deed review, the Coordination Group, in collaboration with the Snowy Advisory Committee, conducted a joint workshop in December 2023 to set the direction for the review of the Deed and the SoE. As part of the workshop, the Coordination Group developed a Problem Statement highlighting the challenges facing the upper Murrumbidgee River. A copy of the Problem Statement is in **Appendix D**. The Problem Statement was used as the foundation for developing a workplan to address the key issues, proposed amendments to Snowy Hydro's SoE and scoping the review of the Deed.

The Coordination Group also contributed to the review of the Deed as part of the Snowy Water Inquiry Outcomes Implementation Deed Review Informal Working Group established by the Commonwealth.

Noting the current SoE does not include any considerations of environmental, social, economic or critical human water needs, the Coordination Group has proposed some key considerations for Commonwealth Shareholder Ministers in Snowy Hydro Limited to inform the drafting of the next SoE. This is at **Appendix C**.

The Coordination Group has also advocated for adopting a collaborative decision-making approach in the proposed Deed review. To support this, the Commonwealth Minister for the Environment and Water, was approached seeking consideration of integrating a collaborative decision-making approach into the Deed review process to progress the outcome of the Review in a way that is highly transparent and accountable, fosters a shared understanding of the challenges and trade-offs, ensures best available scientific evidence is used to inform decision-making, and to reduce opposition by affected stakeholders.

Joint workshop held on 14 December 2023 with Snowy Advisory Committee on direction for review of Snowy Hydro's SoE and the Deed.

An information sheet on collaborative decision-making models is provided at **Appendix E**.

Other key governance activities undertaken during 2023–24 include:

- The Coordination Group implemented governance changes made through legislative amendments to the *Water Resources Act 2007* (effective 8 July 2023). The changes related to the Coordination Group's functions and membership as part of broader water governance reforms were progressed and reflected in the updated Terms of Reference.
- Continued funding support was provided to UMCN to support key activities and knowledge sharing, collaboration and facilitating communication between the community, NGOs and government agencies that contribute to Action 6 of the Catchment Strategy. A summary of the UMCN activities and outcomes is provided in the UMCN Annual Report 2023–24 in **Appendix A**.
- In support of Action 4, Hugh McDowell, Climatologist, Bureau of Meteorology, provided a climate briefing on recent conditions and long-range weather forecasts for the ACT and region at the Group's meeting in October 2023. The presentation was useful in planning catchment management activities in the ACT and the Region.
- To support understanding of collaborative decision-making approach, Dr Daryl Fields from BC Hydro Board and Ms Lee Failings from Compass Resource Management attended the June 2024 meeting to share their experiences in facilitating a multi-stakeholder decision process (Structured Decision Making) with BC Hydro in British Columbia.

4.2. Communities

Theme two of the Catchment Strategy is communities. Under this theme, there are three actions that Coordination Group members are committed to undertaking with the objective that the *community values and remains strongly connected to the catchment, and has the capacity to quickly adapt to environmental, economic and policy changes*. These actions are:

Action 7: Strategically support the role and work undertaken by peak stakeholder groups, volunteers and landowners and managers.

Action 8: Develop an integrated catchment emergency response plan.

Action 9: Build community understanding about catchment health to promote behaviour change through a broad range of communication and education strategies.

To support Action 7, the Coordination Group provided a letter of support to:

- Ginninderra Catchment Group in relation to its application as part of the Urban Rivers and Catchment Program (URCP) for the Urban Waterways Revitalisation: North West Canberra project. The project involves aquatic restoration and improvement activities at Gooromon Ponds and Ginninderra Creek.
- ARRC in support of their grant application under URCP for the Ginninderry Urban Rivers Project. The project targets a significant stretch of the upper Murrumbidgee River. It aims to improve water quality and involves communication engagement events targeted to connect different cultural groups.

A community survey was undertaken by the ARRC in November 2023, as part of The Forgotten River campaign. The survey gave the community a chance to have their say on the condition of the upper Murrumbidgee River, how it is managed, and what they would like to see in future. Information about the survey is in **Case Study 1** on page 29.

Case Study 1

Upper Murrumbidgee Community Survey

For years, concerns have been raised about the health of the upper Murrumbidgee River with a particular issue being the lack of flows. Over the past three years, The Forgotten River campaign has sought to coordinate messaging around these issues and their impacts on the river, and to identify the solutions required to recover its health. As a next step in this process, a survey was undertaken by the Australian River Restoration Centre in November 2023, to give the community a chance to have their say on the condition of the river, how it is managed, and what they would like to see in future.

The results from the **survey** were launched by the ACT Minister for Water, Energy and Emissions Reduction, Shane Rattenbury MLA in April 2024. We are pleased to say that information from this survey is now informing water management in the upper Murrumbidgee River, including via the Statement of Expectations (SoE) from the Commonwealth Shareholder Ministers in Snowy Hydro Limited. We are grateful to all those who participated in the survey and pleased to present results below, with the full report available at *The Forgotten River* **website**.

The Upper Murrumbidgee Community Survey Report

> *"Our family grew up on the 'bidgee. It was not only a place of beauty, food, sustainability, home but a way of life. Our family were the park rangers for the river for near a hundred years. Our Indigenous family lived along the river and surrounding mountains before that and we all married and accepted each other as equal. To me the river represents life, family, future, past, love happiness, sorrow, hard times and great times. It fills my heart with love and happiness to remember the river and all it has given my spirit of memories."*
>
> *Anonymous survey response.*

In November 2023, a community survey was conducted about the upper Murrumbidgee River to gauge community understanding of how the river is managed. Respondents were asked what they value about the river, their understanding about how it is managed, and how they would like to see it managed in future.

The survey was based on community opinion, collecting the thoughts and views volunteered by over 1,000 respondents who live along the upper Murrumbidgee River, including Canberra.

A total of 1,064 people commenced the survey, with most questions receiving over 900 responses.

The survey showed that the community holds strong personal connections to the river. They value the upper Murrumbidgee for a range of cultural, social, environmental and economic benefits, with many having strong connections relating to childhood and family experiences. They are also clear in their responses that these values need to be better considered in the river's current and future management.

> *"I fell asleep one April night in the headwaters of the Murrumbidgee River, up the back of a swamp beside the Tantangara Dam reservoir, to the sound of a powerful owl. Its hoots were haunting in the very cold air, carrying unusually clearly across the landscape. In the morning I awoke to a hoar frost, the water I had assiduously gathered for a morning brew frozen through, and unable to be used. The morning sun shone through the trees on the ridge as beams onto us below, and I was shocked at how perfect it all was."*
>
> Anonymous survey response.

There is a deep, almost spiritual fondness for the upper Murrumbidgee that comes up again and again - it's personal. Along with this is a profound sadness and sense of loss that some of what gave rise to this fondness is gone.

Respondents expressed a strong desire to 'do something' to repair the river; but, oddly, not a strong sense of personal agency in doing the 'something'. Rather it is mostly more passive: that someone (else) needs to 'do something'.

This suggested a strong sense of disenchantment/disempowerment, bordering on cynicism, about whether anything positive will be done. There's a belief that decisions are made behind closed doors and that vested interest's rule.

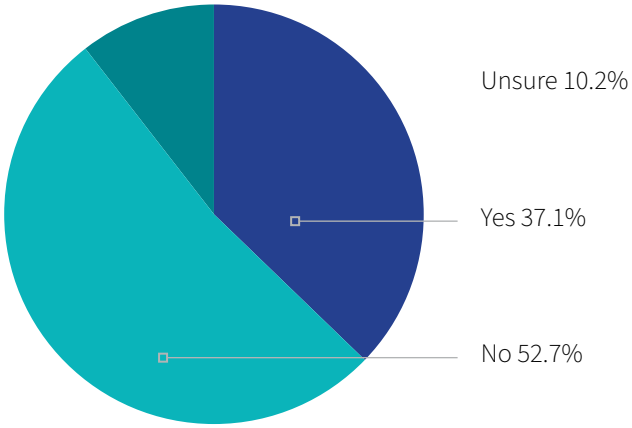
> *"Ironic is an iconic river that supports the Nation's capital, that has been ignored as a natural, cultural and recreational asset. Sadly beholden to economic exploitation. About time to re-balance the scales. It is our river!"*
>
> Anonymous survey response.

There is a deep, almost spiritual fondness for the upper Murrumbidgee that comes up again and again - it's personal. Along with this is a profound sadness and sense of loss that some of what gave rise to this fondness is gone.

Respondents expressed a strong desire to 'do something' to repair the river; but, oddly, not a strong sense of personal agency in doing the 'something'. Rather it is mostly more passive: that someone (else) needs to 'do something'

This suggested a strong sense of disenchantment/disempowerment, bordering on cynicism, about whether anything positive will be done. There's a belief that decisions are made behind closed doors and that vested interest's rule.

Q: *Did you know that the rules which apply to the Upper Murrumbidgee River mean that the Murry-Darling Basin Plan has had little to no impact on improving the health of the Upper Murrumbidgee River?*

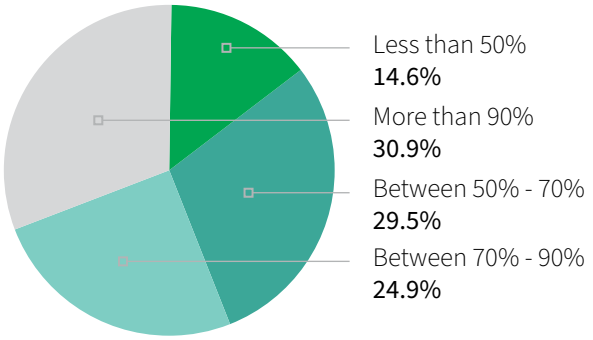


Respondents : 894

Figure 2: Survey results responding to a question about the Murray-Darling Basin Plan impact on the health of the upper Murrumbidgee River

Most people were unaware that the Tantangara Dam captured over 90% of the headwaters of the river. Anecdotally, this is the key fact that many people think is simply not sustainable, with one respondent querying whether there are any national or international standards for hydropower generation to allow minimum flow rates for the rivers they impact.

Q: *How much of the heatwater flow of the Upper Murrumbidgee River is captured by Tantangara Dam and diverted away from the river as part of the Snowy Hydro Scheme?*



Respondents : 915

Only 30.93% of people answered correctly, suggesting much more knowledge sharing and transparency is needed to inform the community about the activities, benefits and risks of Snowy Hydro. For many participants who were unaware that over 90% of water is diverted, this was a surprise and of concern

Figure 3: Survey results about headwater flow

When respondents were asked what, in addition to power generation and revenue, they would like to see included in the Statement of Expectations from Snowy Hydro Shareholders to the Snowy Hydro Board they said (in order of importance), water quality, transparency in operations, environmental sustainability, critical human water needs, community engagement and cultural values. Regional development, and recreational and agricultural values were also included as values to be considered, but as lesser priorities compared to the others.

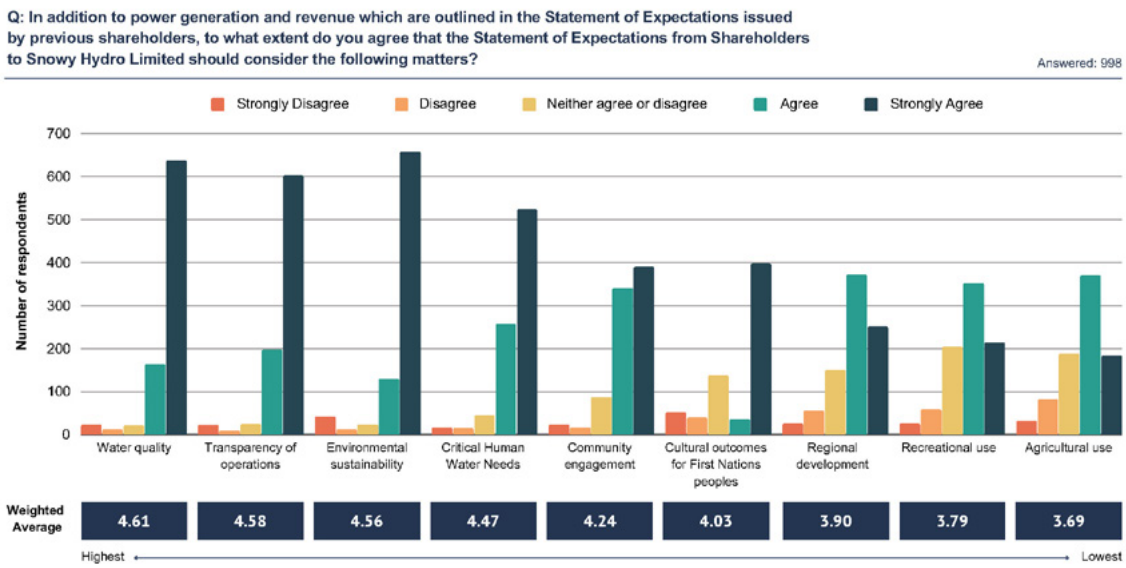


Figure 4: Survey results about Statement of Expectations

In the qualitative responses, many raised the need for complementary natural resource management activities. In particular, the need for investment in pest plant and animal control programs around terrestrial animals (e.g. horses, pigs, goats and deer) and aquatic pest species (especially carp, as well as redfin, gambusia and trout). The need for weed control for willows, box elder, blackberries and other species was also frequently raised as a problem needing to be addressed.

Rivers of Carbon Workshop on the Murrumbidgee River
Photo credit: Australian River Restoration Centre

> *"Knowledge about how this water system works is crucial. People must understand the importance of a free-flowing river system for the environment. Education is key!"*
>
> Anonymous survey response.

Other strong themes that emerged related to the deep concern about environmental degradation, feral animals and plants (in the river and in the riparian zone), and the risks Snowy 2.0 poses to the health of the river.

Complementary natural resource management activities were highlighted as needing to be delivered alongside improved flows and be visible to, or delivered with community. Nature positive solutions and more holistic river management were also mentioned.

When asked about what should be considered in the future management of the river, respondents said ecological health was the highest priority, alongside water quality, water security and cultural values respectively. Agriculture/ industrial uses and recreational uses were ranked fifth and sixth respectively, but still warrant consideration in future management.

The overall sentiment of the responses is one of concern and urgency, mixed with hope about potential improvements or actions that can be taken for the river's future.

Following is a summary of the language and sentiment of responses:

- **Protective and Proactive:** Respondents demonstrate a protective attitude towards the river, emphasising the need for active conservation measures. The suggestions for restoring habitats, protecting native species, and implementing "nature positive" policies reflect a proactive approach to environmental stewardship.
- **Environmental Awareness:** There is a strong sense of environmental awareness among the respondents. They not only recognise specific local issues, such as the impact of exotic species and habitat degradation, but also broader environmental challenges like climate change and sustainable development.
- **Desire for Change and Improvement:** The responses collectively express a desire for change in how the river and its surrounding ecosystems are managed. This includes calls for better water management practices, pollution control, and community engagement in conservation efforts.
- **Concern for Future Generations:** Implicit in many responses is a concern for the future health of the river and its ecosystems. Respondents seem motivated by a sense of responsibility to ensure that the river remains a vibrant and healthy ecosystem for future generations.
- **Need for Collaborative Efforts:** There is an underlying sentiment that addressing these issues will require collaborative efforts involving various stakeholders, including local communities, policymakers, and environmental groups.

These results demonstrate the strong connection the community has to the river and a desire to see its health improved. We would like to thank the over 1,000 people who took part in the survey for sharing their views, expertise and personal reflections. We are extremely pleased that the communities' views are now helping to inform management. Since its launch, the ARRC has continued to meet with a wide range of stakeholders to share the outcomes of the survey, and will continue to do so. We encourage you to view the full report at **The Forgotten River**.

4.3. Regional Development

Coordination Group meeting held at the Snowy Monaro Regional Council Office on 25 October 2023.
Photo credit: Australian River Restoration Centre

Theme three of the Catchment Strategy is *regional development*. Under this theme, there are two actions that Coordination Group members are committed to undertaking with the objective that *human development across the ACT and region is resilient and sustainable*. These actions are:

Action 10: Provide an integrated catchment management planning approach for growth and settlement patterns in the ACT and Region.

Action 11: Develop regional capacity to implement and manage sustainable water infrastructure.

In 2023–24, several activities were undertaken to support regional focus, among other important actions:

- In May 2024, Rebecca Ryan from QPRC was appointed as a Deputy Chair to the Coordination Group.
- Two of the four Coordination Group meetings were held in the regional areas:
  - Meeting one in October 2023 was hosted by SMRC in Cooma and the Coordination Group discussed water security issues in the region. SMRC also presented on the Cooma Water Security projects and

their draft Settlement and Rural Land Use Strategy. The Coordination Group will provide further advice on this during its third phase of consultations. See **Case Study 2** on page 37 for further information on water security projects in SMRC.

  - Meeting three in March 2024 was hosted by QPRC in Queanbeyan and included discussions on regional cross-border water security issues and other funding/ grant opportunities. Emery Joseph and Tim Geyer from QPRC presented on the platypus habitat in the Queanbeyan River – a proposed project for which the Council has sought funding under the URCP grant.

- The Coordination Group provided a letter of support to QPRC for the Queanbeyan Sewerage Treatment Plant (QSTP) project. In the last financial year, the Coordination Group facilitated discussion with water quality specialists, treatment plant designers and key stakeholders on the proposed QSTP upgrades and its potential impacts on impacts on water quality within the catchment.

In support of Action 11, Dr Louisa Oswald from DCCEEW delivered a briefing on the URCP - Round two grants in June 2023. Following the launch of Round two – URCP Grants in November 2023, the Coordination Group called for the removal/amendments to eligibility requirements, especially on the requirements to be within the boundary of a **Significant Urban Area** as defined by the Australian Bureau of Statistics, or up to 500 metres immediately adjacent to the boundary. This requirement has rendered much of the Southeast region (including Cooma, Yass, Braidwood etc.) of NSW and ACT ineligible to apply for Grant applications.

The Yass Valley Council continues to progress the upgrade of the Yass Water Treatment Plant. See **Case Study 3** on page 39 for further details about the next stage of this project.

The Queanbeyan River Riparian Restoration Project currently being undertaken by QPRC aims to improve the health of the river by removing invasive plants, planting native species, and enhancing wildlife habitats. The project also includes community engagement activities to raise awareness and involve the public in conservation efforts. See **Case Study 4** on page 41 for more information.

Case Study 2

Bombala and Cooma Water Security Studies

In early 2024 the SMRC engaged NSW Public Works (NSWPW) to undertake two water security studies as part of the NSW Regulatory and Assurance Framework for local water utilities - formerly known as Integrated Water Cycle Management (IWCM). Water security is one of 12 of the strategic planning outcomes as part of this framework.

The role of local water utilities is to deliver safe, secure, efficient, and affordable water and sewerage services to customers and communities, providing public health outcomes, and supporting economic development, liveability, and the environment.

Downstream Cooma Water Supply – Murrumbidgee River
Photo courtesy of BH Photo's

Bombala Water Supply

Bombala Water Supply Scheme comprises a river off-take and treatment facility which is located off Cathcart Road to the northeast of the Bombala Township. The raw water is sourced from Coolumbooka Dam along Coolumbooka River, upstream of the confluence with Bombala River. The reservoir has a capacity of 300 ML, which is estimated to be reduced to approximately

250 ML due to siltation (Bombala Urban Water Plan, 2000). After the dam, Coolumbooka River merges with Bombala River just upstream of where it flows through Bombala Township.

Water restrictions are put in place depending on the flow into and the water levels in Coolumbooka weir. In December 2019 Level 3 water restrictions were in place in Bombala as the flows into Lake Wallace Dam, and in Delegate and Coolumbooka Rivers had decreased.

The Bombala water supply is therefore not reliable during drought.

Cooma Water Supply

The Cooma drinking water supply system sources raw water from the Murrumbidgee River via Cooma Weir, also known as Mittagong Crossing, located 8 km north of Cooma Township. The Cooma Weir is located downstream of the Tantangara Dam, which is regulated as part of the Snowy Hydro Electrical Scheme. Most of the flow at Cooma Weir comes from the catchment downstream of Tantangara Dam, the rest is derived from Tantangara Dam releases. The catchment area of the Cooma Town water supply is 1810 square kilometres, approximately 471 square kilometres from the catchment of Tantangara Dam. Previous studies concluded that there was a shortfall in secure yield to meet the demand.

Scope of Work

SMRC received government funding to assess options that address the water security at Bombala and Cooma and has engaged NSWPW to:

- review, analysis and establishment of current connected properties and growth
- review, analysis and establishment of current water demands and future water needs
- water security levels of service and analysis to characterise and quantify the risk
- identification of all water sources and preliminary development of scheme options.
- screening process to shortlist the water sources and scheme options for the town water supply.
- feasibility level proof of concept development and assessment of shortlisted scheme options.
- selection of the preferred scheme option for the town water supply, and reporting.
- Project communication reporting and management.

Works completed to 30 June 2024

The projects commenced in earnest at the beginning of March 2024 with data collection, research and consolidation of previous studies and reports to inform yield studies, taking into account a dry climate future modelled through **NARCLiM 1.5**. At the end of June 2024, the studies were yet to be completed with options for water security to the towns of Cooma and Bombala. It is expected the projects will be finalised by December 2024.

Case Study 3

Yass Water Treatment Plant

Alum dosing system installed at Yass Water Treatment Plant
Photo credit: Yass Valley Council

Yass Valley Council continues to progress the upgrade of the Yass Water Treatment Plant (WTP).

The Yass WTP upgrade aims to address several problems including:

- poor water quality deterring housing investment and development
- raw water quality during extreme weather events
- ageing treatment assets reaching the end of their serviceable life
- consumer dissatisfaction with discolouration and scaling
- increasing level of treatment performance to meet new Health Based Targets (HBT) requirements of the Australian Drinking Water Guidelines (ADWG)
- inadequate treatment process redundancy and address the issues related to absence of redundancy and maintenance window as the demand increases
- climate change impacts due to increase in intensity and frequency.

The project to prepare a Design and Business Case for the upgrade of the Yass WTP commenced in November 2019. Stage 1 works were completed at a cost of $2.2million at the end of February 2023.

A high-level design concept plan and business case have been completed and adopted by Yass Valley Council in May 2024. The plan and business case has been supported by the funding bodies and NSW and Commonwealth government agencies.

The project has a total cost of $35.9 million. The funding commitments to date include:

- $6.6 million from the Housing Acceleration Fund (HAF)
- $10.5 million from the NSW Government Election Commitment Ad Hoc Fund
- $0.97 million from NSW Health for the upgrade of fluoridation system.

A funding application for $17 million has been submitted to the National Water Grid Fund to contribute to the shortfall.

Another $3.05 million from the NSW Government Election Commitment Ad Hoc Fund will be used for improvements to the town water reticulation system.

During FY2024–25, the major activity is to prepare the reference design and tender documents.

Given the need to provide tenderers some flexibility and to encourage innovation and cost-effective solutions, the most appropriate contract systems will be a Design Development and Construction contract.

Yass Water Treatment Plant
Photo credit: Yass Valley Council

Case Study 4

Queanbeyan River Riparian Restoration Project

The Queanbeyan River flows through the Queanbeyan urban area, before merging with the Molonglo River, in the upper Murrumbidgee Catchment. The Queanbeyan River Riparian Restoration Project has been designed to focus on clearing woody and other weed species, replanting with local indigenous riparian species, carry out habitat protection and enhancement and general rehabilitation of the river environment. The works are to be carried out in a grid pattern, leaving adequate vegetation between blocks to ensure safe refuge for existing wildlife. The project will include a program of community education and workshops to encourage participation in citizen science programs, including platypus and rakali counts, water watch programs and public tree planting events.

The following key objectives and actions are central to the project's success

Manage the riparian vegetation and enhance vegetative buffers along the corridor.

- Gradual and systematic removal of exotic plant species from the riparian zone, using a combination of mechanical and manual methods.
- Gradual and systematic replacement planting of local indigenous plant species within and adjacent the riparian zone, programmed to stagger works so as to project habitats during the works.
- Continuous follow up maintenance program, including spot spraying, re-mulching, and where required replacement plantings and watering.

Enhance and protect key species habitat within the river corridor, including platypus, rakali, black swan nests etc,

- Reduced gross pollutants in urban waterways.
- Plant protective buffers.
- Remove exotic/deciduous plant species that contribute to risk of eutrophication.

Queanbeyan River at Dane Street
Photo credit: Tim Geyer, QPR

Build capacity within QPRC and the community to facilitate the ongoing river care.

- Uses data collected by volunteers to inform policy and on ground catchment management.
- Increase existing staff resource to work on the river project and adjoining bushland.
- Facilitate growth and resources to the Queanbeyan Landcare and the Friends of the River group.

Increase community awareness and engagement throughout and beyond the project life, in partnership with Queanbeyan Landcare and Molongolo Catchment Group.

Aerial Image of Queanbeyan River passing through the Queanbeyan Urban Area
Image source: QPRC

- Increased community engagement and public awareness in caring for urban waterways.
- Increased community awareness about the management and ecological value of aquatic and riparian areas potentially leading to the recruitment of new volunteers for the Platypus counts.
- Engages the community in the environment through monitoring and caring for our catchments.

Increase accessibility to the river, while ensuring critical habitats are protected.

- Supply and install three carefully placed accessible viewing decks.
- Increase buffer planting and limit access in proximity to known platypus burrows.

The project outcome will be an improvement of the river corridor, including water quality, and habitat protection for a number of key native species. The functional habitat and habitat connectivity benefiting Platypus, Rakali, Black Swans and other native fauna native e.g. fish and amphibians, will have been restored through the re-naturalisation of 2km of the Queanbeyan River corridor in block sections.

By June 2028, the quality of critical feeding and nesting riparian habitat supporting native species, including Platypus, Rakali and Black Swans, on the Queanbeyan River has measurably improved against 2023 pre-project baseline levels through the protection of 2km of streambank (including the removal of all habitat-transforming weeds, and the re-establishment of high-quality native habitat i.e. groundcover, under-story and canopy). It is anticipated, the level of community engagement with the project will increase beyond numbers currently experienced at community planting and working days. Citizen Science programs will be established, and data collected to support policy and future projects.

A series of interpretive signs and QR links to websites will be installed at the three viewing decks, encouraging the community to report sightings via their smart phones. The three accessible viewing decks will have been installed with a link to the river path network, providing safe access to the river for a wider community. An important outcome will be the increased capacity, with QPRC, and the Friends of the River Group, to continue activities.

Overall the increased community awareness and engagement will ensure ownership of the project and ensure its continuation beyond the funding dates.

Queanbeyan River looking upstream from the Suspension Bridge
Photo credit: Tim Geyer, QPRC

4.4. Water

Dr Maxine Cooper speaking at the ACT Water Matters Conference 2024 on the upper Murrumbidgee River issues

Theme four of the Catchment Strategy is water. Under this theme, there are four actions that Coordination Group members are committed to undertaking with the objective that *water is managed in a total water cycle management regime*. These actions are:

Action 12: Secure long term water supplies for the ACT and Region.

Action 13: Improve water quality, protect and restore aquatic ecosystem health and reduce nutrient, sediment and pathogen loads at key sites across the catchment.

Action 14: Ensure Indigenous and other values are recognised.

Action 15: Develop a better understanding of groundwater resources (quantity and quality) within the region.

Water management and security were a key focus for Coordination Group members in 2023–24. This was achieved through a range of actions undertaken during the period.

In July 2023, the Coordination Group prepared a submission on delivering the Murray-Darling Basin Plan (Basin Plan) to DCCEEW. The Basin Plan sets the amount of water that can be taken from rivers for industry, agriculture and community use while leaving enough to restore and maintain a healthy environment and river system. The submission can be found at **Appendix F**.

Icon Water continued to develop and implement an Integrated Water Management Program (IWMP) to improve the resilience of the ACT's water and wastewater services in an integrated and coordinated way. Further information on this Program in **Case Study 5** on page 46.

On 13 September 2023 members of the Coordination Group joined with members from the Murray-Darling Basin Authority on a field trip to upper Murrumbidgee Catchment organised by the OoW. The field trip was productive in raising issues on matters for conversation to find creative solutions to restore the health of the upper Murrumbidgee River.

To further support and advocate for restoring the upper Murrumbidgee River, the Chair attended the 2024 ACT Water Matters Conference held on 13 June 2024 and participated in a discussion on the key issues facing the water sector.

The Coordination Group was fortunate to have been provided with updates on key water-related initiatives throughout their meetings in 2023–24. This includes the following:

- Ms Woo O'Reilly, from OoW, presented on ACT's *Healthy Waterway Programs* and other key activities to improve urban water quality in the ACT.
- Mr Wally Bell, from Buru Ngunawal Aboriginal Corporation, has attended Coordination Group meetings as an observer and provided direction and information on First Nations context and cultural values in water management.
- Mr Andy Lowes, from UMCN presented on the Water management challenges and issues in the upper Murrumbidgee.

Chair with Office of Water staff members at the ACT Water Matters Conference 2024

Case Study 5

Our Water Future – Icon Water's Integrated Water Management Program

Icon Water actively plans for a growing Canberra and a future where climate change has impacted its systems. In 2023–24 Icon Water continued to develop and implement an Integrated Water Management Program (IWMP), to improve the resilience of the ACT's water and wastewater services in an integrated and coordinated way. The IWMP will deliver sustainable value for the community to prepare Icon Water for the future.

Through the IWMP, Icon Water progressed implementation of three key service strategies that guide the long-term development of Icon Water services, now and into the future.

- The Water System Strategy identifies the vision and objectives for Icon Water's water system to be safe, secure, smart. It identifies the actions required to ensure long-term water security.
- The Wastewater System Strategy sets the direction for Icon Water's wastewater system, including the different strategic options available and the actions required to progress them.
- The Non-Drinking Water Strategy sets the direction for Icon Water's non-drinking water system, as part of drought response, demand management, and in supporting livability outcomes.

Urban Water supply planning

Icon Water's water resource models are used to routinely test the performance of the water supply system by projecting demand and simulating future climate scenarios, including climate change impacts. Icon Water's modelling is forecasting that the water supply system is performing as required. As Icon Water looks to the future, and factors in population growth and climate change, the model is forecasting that Canberra may require its next water source by 2040. As a result, planning for future urban water supply and the ACT's next water source is a key focus under the IWMP.

In 2023–24 Icon Water progressed investigations into the next major water supply source. Investigations considered previously identified options as well as new options, including augmented dams, additional river pumping, groundwater, demand management, purified recycled water for drinking, recycled water for non-drinking water purposes, and desalination. The assessment of options incorporated strategic policy advice from the ACT Government.

More detailed feasibility investigations on shortlisted options will be undertaken over the next 12 months. These investigations will include surface water options and climate-independent options, such as purified recycled water and desalination, which would increase the system's climate resilience. Icon Water will also look at demand management and non-infrastructure options.

Icon Water also completed actions identified in the Drought Management Plan (which sets out pre-emptive actions to respond to extreme drought conditions), including investigations into the feasibility of groundwater and purified recycled water as drought response measures and commencing a review of the Permanent Water Conservation Measures (PWCM) and Temporary Water Restrictions (TWR) schemes.

Our Water Future engagement program

Icon Water's Let's Talk Water and Wastewater engagement activities are designed to support a deeper understanding of its customers and to inform strategic priorities and investment decisions. In 2023–24, Icon Water initiated a program of customer and community engagement, **'Our Water Future'**, on long-term future water security. The engagement program is being delivered over four phases and will run from August 2023 to late 2026.

The first phase of engagement was conducted from August 2023 to April 2024. It built on Icon Water's existing insights from previous customer and community research on water security. The objectives of this phase were to:

- Collect relevant and quantifiable community data to support Icon Water's evidence-based decisions around future water security.
- Ascertain early community perceptions and preferences and examine customer thoughts on high-level relative cost scenarios to achieve greater future water security as measured by:
  - avoiding different levels of water restrictions
  - avoiding a water supply emergency, for example during extreme drought, and considering a commensurate investment in infrastructure and high-level cost to customers.

A citizens' panel (22 members) was formed to explore water security knowledge, water source options and service levels in relation to water restrictions. Icon Water tested the proposed criteria that could be used to evaluate future water source options and the panel explored a shortlist of supply solutions. The engagement also reached out to more than 1,300 Icon Water customers and the community through quantitative surveys and interviews with 22 water-dependent businesses and key high-volume consumers. Key insights are available on Icon Water's website.

The insights from the first phase of engagement also helped inform Icon Water's input into the ACT Government's refresh of the ACT Water Strategy, initial planning for review of TWR and PWCM schemes, and refinement of a shortlist of future water source options for more detailed assessment.

Phase 2 will begin in late 2024 and will support finalisation of a shortlist of water supply options and prepare viable water source solution portfolios, including demand management initiatives. Future phases of the engagement program will include further sessions with the citizens' panel and activities to hear from Icon Water's customers and the broader community.

Planning for Water Security

- Participants have a sound understanding of water security and the issues associated with Icon Water's forward planning.
- Participants supported investment in water source infrastructure in principle, recognising its role in securing future supply. They wanted more understanding of: cost impact to customers; environmental impacts or benefits; use of the infrastructure elsewhere in Australia and overseas; timeframes to deliver; contribution to long-term water supply and security; and the nature of the treatment technologies (particularly purified recycled water).

Future Water Source Options

- Participants said increasing capacity of Icon Water's existing dams, installing purified recycled water treatment technology at the existing wastewater treatment plant or building new dams were the most acceptable water supply augmentation options.
- Some participants – primarily larger water users – felt that opportunities to encourage behavioural change within the ACT should be explored before needing to consider such large infrastructure investments.

Permanent Water Conservation Measures, Temporary Water Restrictions and Levels of Service

- There was a low level of understanding of specific rules for PWCMs and TWRs.
- Participants largely felt that PWCM rules were acceptable and common-sense, and that following them was part of being a community.
- Most participants felt that all stages of TWRs are acceptable and manageable.
- Some participants thought that the Stage 1 water restrictions should be triggered earlier, when dam levels are higher.
- Water dependent businesses were supportive of implementing Stage 1 water restrictions sooner to prevent more severe later stages, as these could significantly impact business operations and therefore profitability. They also supported different rules between business and residential customers.
- Participants were largely supportive of changing service level targets to allow more time in restrictions. This includes key account customers who saw the impact as minimal to them and beneficial to community water conservation behaviour overall. Water-dependent businesses were less supportive.
- Some participants were also in favour of changing service level targets to make them only applicable to Stages 2 water restrictions and higher. Most felt that Stage 1 rules are easy to follow and not onerous, and the change would not have a huge impact.

Figure 5: High-level insights from Icon Water's Our Water Future community engagement program

Case Study 6

Upper Murrumbidgee Investment program

Upper Murrumbidgee River, upstream of Tharwa – Cease to flow event in January 2019
Photo credit: Mark Jekabsons

Background

The upper Murrumbidgee River provides significant ecological, social and cultural values, and is important for regional water security within the upper Murrumbidgee region. The upper Murrumbidgee catchment provides run-of-river water supply for Cooma and Tharwa, as well as Canberra and Queanbeyan, both directly and via the Murrumbidgee to Googong transfer pipeline.

The river also provides a critical aquatic habitat for several threatened native fish and crayfish species.

The health of the upper Murrumbidgee River has declined in recent decades. This is evident from the reduced abundance and diversity of native fish species, reduced quantity and quality of aquatic habitat, and increased incidents of poor water quality issues amongst others.

Package to improve the health of the upper Murrumbidgee River

Following Senator Pocock's **media release** in November 2023, the Commonwealth Government has committed up to $55.6 million to support short- and long-term improvements in the health of the upper Murrumbidgee River. Some of the key projects are detailed below.

River health and monitoring program

The Australian Government has committed $20.3 million, including:

- $15 million over 3 years from 2024–25 to improve river health and resilience. Projects will address the decline in river health, water quality and improve habitat for endangered species.
- $5 million over 5 years from 2024–25 for science and monitoring projects. This will improve knowledge of water quality, riparian health and the status of native species in the region.

The program will be delivered through a **Federation Funding Agreement** in partnership with the ACT and NSW.

Review of the Snowy Water Inquiry Outcomes Implementation Deed

$5.3 million will be provided over 5 years to support a review of the **Snowy Water Inquiry Outcomes Implementation Deed (the deed)**.

This includes:

- $0.5 million to support First Nations participation in the review from 2023–24 through to 2025–26.
- $2.5 million for technical advice to support the review from 2024–25 through to 2026–27.
- $2.3 million to run the review.

The Deed is a 2002 agreement between the Australian Government, New South Wales and Victoria. Subject to the agreement of the New South Wales and Victorian partner governments, this would be the first review of the deed since it was originally signed.

Contingency funding for additional flows

In addition, $30 million ($10 million per year for three years) has been set aside to support additional water releases. This funding can be drawn on only in drought-like conditions to address low-flows in the upper Murrumbidgee River.

4.5. Land and Biodiversity

Theme five of the Catchment Strategy is land and biodiversity. Under this theme, there are four actions that Coordination Group members are committed to undertaking with the objective that the ACT and Region is a healthy ecological system that is resilient to stress and adaptive to change. These actions are:

Action 16: Implement an approach to biosecurity planning and risk management.

Action 17: Develop a regional approach to strategic land and biodiversity management practices.

Action 18: Mitigate soil erosion at priority sites.

Action 19: Consider regional approaches to dealing with contaminated land, illegal dumping of contaminated waste and dumping of sub-soil construction waste.

The Coordination Group continue to work to support healthy ecological systems across the ACT and surrounding region. In 2023–24, this includes consideration of biosecurity concerns, particularly regarding feral pigs and redfin through the work of NSW Southeast Local Land Services and the Ginninderra Conservation Trust (Action 16).

5. 2024–25 Priorities

In 2024–25, the Coordination Group will further progress actions in the Catchment Strategy by focusing on the following priorities.

Action 2: Establish an inter-jurisdictional investment and resourcing framework.

The Coordination Group will continue to annually review the inter-jurisdictional investment and resourcing requirements of the Group. The Budget Sub-group which was established in 2021–22 provides advice to the Group on resourcing opportunities, including guidance on members voluntary contributions and investment plan to deliver activities for improved catchment management and river health.

Action 3: Promote evidence-based decision making for improved healthy catchments.

Action 13: Improve water quality, protect and restore aquatic ecosystem health and reduce nutrient, sediment and pathogen loads at key sites across the catchment.

The Coordination Group will:

- Promote citizen science programs, foster knowledge sharing and insights by supporting workshops/conferences and working collaboratively with regional partners, key government agencies, scientists and community members
- Integrate scientific research and data into policy decisions. Co-funding opportunities to conduct research in the upper Murrumbidgee Catchment (e.g., research on flow requirements for aquatic habitat) will be pursued
- Advocate for investment in key sites to improve the health of rivers and the catchment
- Advocate for stakeholder participation and evidence-based processes in review of water management in the upper Murrumbidgee River.

Action 5: Review and align catchment management legislation, regulations, and policies to improve consistency.

The key priority of the Coordination Group for 2024–25 is to progress actions to review and refresh the existing **ACT and Region Catchment Strategy 2016 –2046** (the Strategy). The Strategy provides a guiding framework for the activities of the Coordination Group. The review will be undertaken with a direct focus on the Strategy's efficacy, and its ability to respond to changing conditions (environmental, cultural, societal, economic) and emerging challenges.
This review will be conducted in line with the Catchment Strategy's first 10-year comprehensive review. The Coordination Group will jointly fund the project with EPSDD (Office of Water).

The draft refreshed Catchment Strategy is expected to be ready for community consultation by the end of 2024–25.

Action 7: Strategically support the role and work undertaken by peak stakeholder groups, volunteers, landowners and managers.

The Coordination Group values the important role and work undertaken by peak stakeholder groups, volunteers, landowners, and managers in protecting the ACT region's catchments. The Coordination Group will continue to advocate for support on behalf of these groups and identify potential funding sources to improve catchment and waterway health. The Coordination Group financially supports the UMCN, however, on-going funding is dependent on the Coordination Group members' voluntary contributions.

Action 9: Build community understanding about catchment health to promote behaviour change through a broad range of communication and education strategies.

The Coordination Group will seek to strengthen understanding of catchment health by designing and undertaking appropriate actions. A key action for this year includes undertaking a *Social Expectations Survey and Engagement Program* that would build on the 2015 survey undertaken by the University of Canberra for the Coordination Group. The survey would cover all the ACT and Region and will be structured to share knowledge and gain views on the rivers and catchments of the region. The survey report is expected to provide valuable information for the refresh of the Strategy and suggest directions for consideration for the Coordination Group.

The Restoring the Health of the Upper Murrumbidgee Program provides an opportunity to further invest in community education, participation, and advocacy on sustainable water resource management. The Catchment Group will work with the ACT and NSW governments in design of a communications and engagement program that supports long-term outcomes for the river.

This action is also progressed through activities mentioned under Action 5 and Action 7 and the case studies in the Annual Report are designed to build community understanding.

Action 12: Secure long-term water supplies for the ACT and region.

Water security is crucial in building the ACT region's resilience as we face climate change risks, such as droughts. The Coordination Group will maintain efforts to advance actions to secure the ACT region's long-term water security for the environment and human use. The Group will also continue to advocate for governance and management changes, including ensuring that environmental, social and cultural needs alongside renewable energy production are given priority in the proposed update of the Statement of Expectations for Snowy Hydro Limited (**2021**) and review of the Snowy Water Inquiry Outcomes Implementation Deed (**2002**) (Deed). In addition, the Group will advocate for integrating a collaborative decision-making approach into the Deed review process to support a transparent and accountable review outcome.

Efforts of the Coordination Group to shape water planning policies and initiatives to foster healthy regional waterways will continue, especially in relation to the upper Murrumbidgee River.

Action 13: Improve water quality, protect and restore aquatic ecosystem health and reduce nutrient, sediment and pathogen loads at key sites across the catchment.

The Coordination Group will continue its 2023–24 efforts of informing decision makers and the community on the condition of the upper Murrumbidgee River and the required governance changes highlighted under Action 12. To do this, the Coordination Group will work closely with the Commonwealth, ACT and NSW governments, Snowy Hydro and other relevant stakeholder groups.

The Group will also seek opportunities to work with the Commonwealth, ACT and NSW Governments in delivering the Australian Government's funding commitment of up to $55.6 million for improving the health of the upper Murrumbidgee. Noting the Coordination Group provides an established forum for promoting regional collaboration and provides advice on resolving complex water catchment management issues, the Group will seek to provide strategic advice on program design to embed regional perspectives and ensure investments are in target priority areas to improve the health of the river.

Other key activities to support this action will be progressed through Action 3 and Action 12.

Action 14: Ensure Indigenous and other values are recognised.

The Coordination Group will investigate ways to promote the incorporation of Traditional Custodian Land Management Practices in catchment management and biodiversity enhancement in the region. Activities such as the Cool Burn events will be considered for funding to support knowledge sharing and help shape future practices in the ACT and Region.

The Coordination Group will facilitate actions to advance permanent Ngunnawal representation on the Coordination Group, in consultation through the Traditional Custodian network. Membership is determined by the Minister. While this is being done, Mr Wally Bell, a Ngunawal Elder, is an observer at meetings, and supports the Coordination Group.

Appendix A

Upper Murrumbidgee Catchment Network Annual Report 2023–24

2023–2024 Annual Report Contribution for ACTRCMCG

The Upper Murrumbidgee Catchment Network (UMCN) has held several successful community engagement events throughout the year. As with our long-standing practice of holding four General Meetings a year, September and November 2023 and May and June 2024, these events provided opportunities for UMCN to update members on its activities and for members attending, in-person and on-line, to report on the initiatives of their organisations.

These events continue to foster information sharing by government and local government agencies, corporate organisations, and community conservation groups on a wide range of initiatives and issues. The UMCN member survey conducted in early 2024 reinforced the importance of these events with 80% of respondents highlighting in-person meeting/events as their communication preference.

In addition to these meetings:

- we held two site visits, to the Icon Water Treatment Plant and Ginninderry Conservation Trust conservation corridor
- hosted two on-line presentations
- co-hosted, with Icon Water and Buru Ngunawal Aboriginal Corporation, a very popular Cool Burn event.

Icon Water Lower Molonglo Water Quality Control Centre Tour

Raised during a General Meeting was a need for better understanding by smaller community groups of the operations and outputs of the region's largest water

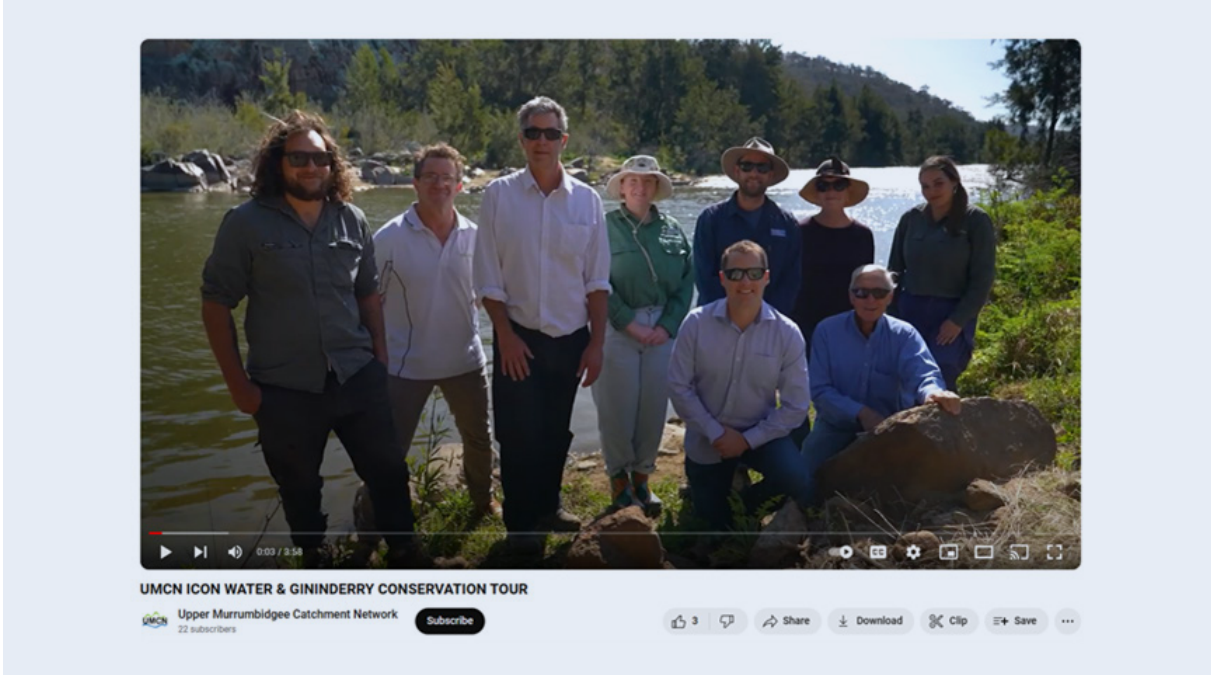
management organisation, Icon Water. In response to this, UMCN worked with Icon Water to organise a tour of their main wastewater treatment plant, the Lower Molonglo Water Quality Control Centre (LMWQCC) in September 2023. This was a very informative event with many questions asked along the tour of the various components of the treatment plant. All attendees were very appreciative of the opportunity to learn so much more about where water management has come from, what is happening now and Icon's plans for the future both in the ACT and neighbouring NSW. It also provided insights into the proposed plant upgrades to make the facility state-of-art and environmentally responsible as it looks to meet current and future water treatment needs of a growing population.

UMCN members and guests viewing the settling ponds at Icon Water's Lower Molonglo wastewater treatment plant in September 2023. Credit, UMCN.

Ginninderry Conservation Trust Tour

Another inspirational tour in November 2023, was led by Trust's staff involved in the cultural and environmental values conservation work being undertaken along the 280-ha conservation corridor. This is a wonderful example of collaboration between the ACT government, Yass Valley Council, The Ngunnawal community, Ginninderry representatives, and local residents.

The **video** of these two tours is available on the UMCN's YouTube channel and is one of our most popular.



The youtube video of the Icon Water treatment plant tour and visit to the Ginninderry Conservation Trust, is available on the UMCN website. Credit, UMCN.

Online presentations

In May 2024 UMCN extended an invitation to members as well as to our broader community newsletter subscription list to attend two online presentations. These were well attended with opportunities for comment and discussion at the end.

Andy Lowes, UMCN Chair and Program Manager at the Australian River Restoration Centre (ARRC), *spoke on Community voices on the Upper Murrumbidgee*. The presentation outlined the ARRC's community survey on views of the river with a focus on the results and how they are being used in future water management. There was general support by attendees of the enlightening results of this survey and potential for use in advocacy for improving the health of the river and catchment.

Ms Woo O'Reilly, from the ACT Office of Water working on the ACT's *Healthy Waterway Plans*, spoke of the work the ACT government has been undertaking to improve urban water quality in the ACT. The initiatives to better understand sources of stormwater pollution and explore innovative urban water design are inspiring. The importance of research and community education and engagement were outlined as key to addressing long-standing water quality issues such as blue green algae blooms experienced in Lake Tuggeranong.

Videos of both these presentations are available to the public on the UMCN YouTube channel.

Community voices on the Upper Murrumbidgee.

Healthy Waterway Plans

Cool Burn event

In May 2024 UMCN held the second, and very popular, Cool Burn event, co-hosted with Icon Water and Buru Ngunawal Aboriginal Corporation. Conducted on the International Day of Biological Diversity, the event raised attendees' awareness of the cultural, spiritual as well as practical ecological values of an Indigenous led cool burn. Everyone had the opportunity to be actively involved in the burn and follow the meditative and gentle nature of the low, slow fire. Included in the day was a presentation by Dr Ken Hodgkinson, on his many years of Landcare work and research on various land management treatments, including fire. The day was well received for the opportunity to experience, learn, converse, share and collaborate.

A **video** of the event is also available on the UMCN YouTube channel. The video of the first 2022 event is the most popular on our channel with over 300 views.

Cool, calm and slow burn (left) helps care for the land, as participants take part in the event (right).
Photo credit: UMCN.

Appendix B

Independent Community Representative Report

Cool burn event hosted by the UMCN and Icon Water, at Icon Water's property, Williamsdale, Southern ACT.
Photo credit: Andy Scarano at Instant Andy, May 2024

As the community representative on the ACT and Region Catchment Management Coordination Group (Coordination Group), I've enjoyed liaising with the community on local catchment management matters and conveying these back to the catchment group. As Chair of the Upper Murrumbidgee Catchment Network (UMCN), I've also had the opportunity to participate in a range of engagement activities with local stakeholders to strengthen collaboration in the region, including a tour of Icon Water's Lower Molonglo wastewater treatment plant, Ginninderry Conservation Trusts property, and hosting a **Cool Burn event** with Traditional Owners and community at Icon Water's offset property at Williamsdale. UMCN continues to hold online webinars including presentations this year by Woo O'Reilly from the ACT Office of Water on the Healthy Waterways Program, and myself on a community survey undertaken by the Australian River Restoration Centre (ARRC) on water management in the upper Murrumbidgee River (see Case Study 1). Both recordings are available on the **UMCN website**, together with the **Icon Water/ Ginninderry tour** and the **Cool Burn event** videos, which are proving popular.

The Community Survey undertaken by the ARRC on water management in the upper Murrumbidgee River in November 2023 gave the community a voice on considerations in terms of management of the river. Through the survey, the community shared their concerns about the threats to the river and highlighted the need for multiple values to be considered in water management for the Murrumbidgee River, beyond power generation and revenue. It also highlighted personal connections to the river and a desire to see it improved for future generations. The survey has been shared with ACT, NSW and Commonwealth government agencies and was released to the community by the ACT Minister for Water, Energy and Emissions Reduction, Minister Rattenbury. The full report available at: **Community Voice – The Forgotten River – The Forgotten River**, with a case study included in this report.

A noteworthy achievement for the year was the program of work negotiated by Senator David Pocock to invest in the recovery of the upper Murrumbidgee River. The next steps now will be to ensure the most effective and efficient use of the funds for on-ground restoration and science, as well as collaborative reviews of the Statement of Expectations (SoE) and the Snowy Water Inquiry Outcomes Implementation Deed (Deed) which need to involve the community.

The Murray-Darling Basin Authority Board hears from a broad range of stakeholders as part of a listening tour of the upper Murrumbidgee River, at Tharwa Picnic Area, 13 September 2023. Photo credit: Andy Lowes.

As part of continued efforts to improve the health of the upper Murrumbidgee River, there were a range of presentation and engagement events held this year. In September 2023, the Murray-Darling Basin Authority Board held a listening tour at Tharwa to hear about the impacts on the river. They heard perspectives from First Nations, landholders, the Coordination Group, UMCN, the Upper

Murrumbidgee Demonstration Reach (UMDR) and ARRC, as well as agency staff. The upper Murrumbidgee River also featured in a seminar at ANU in October 2023 called *Contested Climate: Water Security, Urban Resilience, and Planning for the National Capital and Beyond*. This event was a feature of the Festival of Contested Urbanism hosted by the University of Sydney's Henry Halloran Research Trust. I also presented to the Tuggeranong Community Council on 7 May 2024 about the upper Murrumbidgee River, with several attendees and the Council itself following up on the campaign with actions including writing submissions on National and regional water policy.

On 11 June 2024, I was pleased to travel with the Chair of the Coordination Group and a representative from NSW Government to Sydney, to present to the Snowy Hydro Limited Board on the importance of the Murrumbidgee and Montane rivers, and explore options to improve its management ahead of upcoming reviews of the SoE and the Deed. This was well received and I'm grateful to the board for taking the time to listen and discuss water management issues across the region.

This meeting was followed on Wednesday 12 June by a plenary session organised by Australian Watertrust in conjunction with BC Hydro from British Columbia, to share lessons on the benefits of using a structured decision-making model to make decisions around water management for multiple values, in the context of hydropower generation. Many stakeholders in the region attended this session, with the group then speaking to the Coordination Group that afternoon. This session was useful for sharing an alternative approach to decision making outside the normal approaches often employed in water management. The community is keen for a participatory approach to decision making to be adopted for the Deed review, to ensure broader stakeholder involvement in trade-off decisions made for the upper Murrumbidgee River.

The upper Murrumbidgee community is highly engaged in the management of the river and the catchment driven working collectively across a range of passionate groups and organisations. The UMDR is one of these groups working tirelessly across the NSW and the ACT to improve the catchment. In June 2024, UMDR held a workshop to identify priority actions to improve the catchment for outcomes in the Murrumbidgee River from Tantangara Reserve to Burrinjuck Dam. This collaborative workshop and all those involved looked collectively across the catchment at the values, threats, previous work delivered, and future work needed, to recover the upper Murrumbidgee River.

Over 2023–24, several issues raised with me throughout the year include pressures on the catchment from pest plant and animal species following three wet years. Among the many of these, the proliferation of box elder across the landscape needs attention from managers. Noteworthy for its highlighter-green coloured foliage against the backdrop of native species, this fast-growing woody weed is expanding through waterways at an alarming rate, and will need to be a focus for removal over coming years, among the many other pest plants and animals.

Catchment and NRM groups have also raised with me concerns around the uncertainty of funding, including short-term funding cycles and intermittent or delayed funding models which are impacting delivery. Delays in the delivery of funding from both the first and second round of the urban rivers grants has also impacted groups relying on those funds. In the ACT, this means a need to focus

The Murrumbidgee River of an afternoon at Pine Island, 19 May 2024.
Photo credit: Andy Lowes

on securing funding for catchment groups, community groups and programs such as Australian Waterwatch, which are critical to understanding the health of our waterways. I've also heard from the community that the EPA needs to be adequately resourced to ensure regulation and compliance commensurate with the level of development occurring across the region and that efforts should be made to make monitoring data publicly accessible.

2023–24 was also a busy year again for community groups to write submissions in response to various engagement rounds from state and federal consultation processes. Submissions included input to the update to the National Water Initiative, the ACT Water Strategy refresh, the Australian Government's strategy for delivering the package of work for the upper Murrumbidgee River, and the NSW Regional Water Strategy (RWS). This is the third round of input on the NSW RWS and it's been pleasing to see that this document now reflects issues and solutions in the upper Murrumbidgee River, in addition to those downstream of Burrinjuck Dam.

Finally, it has been rewarding representing the community on the Coordination Group in 2023–24. As Chair of the UMCN, I am constantly reminded of all the terrific work being delivered by community and Landcare groups, conservation groups and NGOs, catchment groups, programs such as Australian Waterwatch, NSW Councils, ACT and NSW government led programs to improve our waterways. There is so much happening, and yet so much more to do. I see the UMCN as critical for strengthening the collaboration, networking and knowledge sharing across the region, and the Coordination Group as critical to coordinating these efforts across the region to ensure the best use of investment from all agencies to protect and recover our precious waterways.

Appendix C

Statement of Expectations – Key Considerations

The proposed wording below has been endorsed by the ACT and Region Catchment Management Coordination Group (the Coordination Group) and was provided to Commonwealth Shareholder Ministers of Snowy Hydro Limited to inform the drafting of the next Statement of Expectations (SoE).

It is proposed that the following paragraphs be added to the SoE as a policy order under Clause 22 of the Public Governance, Performance and Accountability Act 2023:

Consistent with reforms under the Commonwealth Water Act (2007), the rights and obligations under the NSW Snowy Water Corporatisation Act (1997) and Snowy Licence (2002; last revised 2020) and the Snowy Hydro Board's Sustainability Report (2023), Shareholder Ministers expect that Snowy Hydro Limited will balance their water management and energy obligations under the licence and obligations to support improved environmental, social, economic and Cultural outcomes alongside renewable energy production.

Snowy Hydro Limited will work with the jurisdictional governments of New South Wales, Victoria, the Australian Capital Territory and the Commonwealth to:

- Progress against each of the revised matters and obligations as outlined in the Statement of Expectations.
- Implement processes and procedures for managing risks to regional water security; including water take for domestic purposes or essential town services under extreme events. The processes and procedures must include considerations for both water shortages and quality, and consider short, medium and long-term trends in regional development and climate change.
- Improve environmental, Cultural, economic and social values, which can be achieved by applying the principles for environmental watering in the Murray Darling Basin Plan at a minimum (Chapter 8, Part 4, Division 6).
- Ensure regular engagement with the community within which it operates and impacts, including a range of stakeholders representing environmental, regional water security, social, Cultural and production values.
- Report to Commonwealth Shareholder Ministers via the annual report on release of water for environment use from the Snowy Scheme under the Water Act 2007 s85ABA; and compliance report to New South Wales reporting compliance requirements set out in the Snowy Water License.
- Operate under the principle of transparency and public accountability in relation to the annual reports about water releases from the Snowy Scheme[1].

1 Water Amendment Act Subsection 7.08(3) 7.08A; and Schedule 1, Part 4, Division 4A, 85ABA

Appendix D

Problem Statement[1]

Water management issues in the upper Murrumbidgee River

Altered and impaired flow regimes are having significant impacts on the condition of the upper Murrumbidgee River a critical water resource for NSW, and the ACT, which supply regional water needs alongside supporting environmental, social and cultural values. The upper Murrumbidgee River has been assessed to be in poor condition due in large part to the insufficient volumes and timing of flow delivery,[2,3] and catchment management.

On average, flow volumes have been reduced to less than 10% of natural volumes[4] in the upper Murrumbidgee River, with the greater alteration to flow regimes compared to 'natural', the greater the impact.[5] These altered flow regimes are as a result of the diversion of water to produce hydroelectricity through the Snowy Hydro scheme, with the Snowy Water Inquiry Outcomes Implementation Deed (Deed) and Snowy Water Licence establishing the rules for the timing and release volumes of water from Snowy Hydro storages.

These altered flows are impacting many natural processes in the river resulting in *poor ecosystem health, loss of threatened species*, the inability to meet *critical human water needs* and the *increased risk of poor water quality outcomes* under extreme climatic conditions such as drought events. For example, the township of Cooma a short distance downstream of Tantangara dam has the lowest water security rating under the NSW water management framework. Further downstream, the quality of water entering the ACT at times exceeds tolerances for effective water treatment processes from existing infrastructure, making it unsuitable for extraction for potable water use. Additionally, the reduced flows and build-up of bacterial loads impact access to the Murrumbidgee River for recreational use.

Increased demand for urban water supply and competition for water resources and growing populations is occurring within the region. Further, the upper Murrumbidgee River catchment is vulnerable to climate change. Coupled with the reduced flow volumes and declining water quality, water availability will not be sufficient for delivering water for the region, particularly critical human water needs during extreme climate events such as drought. Subsequently, increased demand will exacerbate ecosystem health and regional water security.

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1 The problem statement was updated in September 2024.

2 Sustainable Rivers Audit Vol. 3 2015.

3 Davies et al. (1992) Aquatic Conservation: Marine and Freshwater Ecosystems 2: 325–349 cited by MacGregor et al. (2005) River Research and Applications 21: 201–213.

4 Improving the health of the Upper Murrumbidgee: Draft Strategy.

5 Poff and Zimmerman (2009) Freshwater Biology 55(1): 194–205.

Background

The upper Murrumbidgee River forms an important part of the alpine, subalpine and mountain catchments of south-east Australia. The Snowy Hydro scheme diverts the headwaters of the Snowy, Geehi, Eucumbene and Murrumbidgee Rivers, releasing water into the Murray and Murrumbidgee rivers. The diversion of water supports hydro-electricity generation and irrigation.

The upper Murrumbidgee River catchment is vulnerable to climate change. Flows are heavily influenced by snowmelt, expected to decline in the future, reducing the availability of water for regional water supply and the environment and other priority needs.

Impacts on regional water security (critical human needs and water quality)

Alongside the altered flows as a result of the diversion of water to produce hydroelectricity, the upper Murrumbidgee River has increased vulnerability to climate change, with a decline in mean annual flows anticipated. This is likely to result in competition for water resources and potential increases in demand. These cumulative impacts were seen during the 2019 drought resulting in the Murrumbidgee River ceasing to flow at the township of Tharwa, requiring water to be trucked in for non-potable domestic use including firefighting supply.

The Murrumbidgee is the ACT's third source of drinking water; the quality and quantity of water in the river in 2019 has raised concerns about the reliability of the upper Murrumbidgee for regional water security. With reduced water availability anticipated, there is a need to support water security in the region for existing urban water supplies, including recognition of the increasing demand for water extraction for water extraction for the growing regional population – not just in the ACT, but upstream and downstream as well.

Communities within the region, in both NSW and the ACT, will be reliant on Murrumbidgee River for drinking water in dry times, so it is vital that the rules of the Murray-Darling Basin are applied across this region. A focus on the Snowy Hydro operations and their license requirements should consider the increasing needs of municipal authorities like councils and the ACT Government, and their need for water security and increased water extractions to cater for their expanding population.

Investigations into a range of water source options, including new surface water options and climate-independent options and a long-term water security plan are being developed for the ACT.[6]

Environmental impacts of reduced flows

The reduced flows have led to reduced wetted habitat and significant sedimentation that causes a loss of clean cobble and gravel substrates required for many aquatic animals including the endangered Macquarie perch. Reduced flows also lead to a loss of connectivity along and across the river corridor, with fish unable to recolonise areas and complete life cycles. For example, in the upper Murrumbidgee River, flows in dry years now include extended periods of zero flow in what is naturally a permanent watercourse. Further, the flow regime provided is constrained by rules in the SWIOID that restrict the timing and size of flows and severely restrict the ability to adapt to the river's conditions and requirements.

6 Draft ACT Water Strategy 2024-44 Striking the Balance.

Improving the health of the upper Murrumbidgee

Healthy and sustainable river systems are important for Murray-Darling Basin communities, industry and First Nations. The Commonwealth Government has committed $55.6 million to a range of extra measures to improve the health of the upper Murrumbidgee. This includes 1) *a regional river health and monitoring program*; 2) *Conducting a review of the Snowy Water Inquiry Outcomes Implementation Deed*; and 3) *Contingency funding for additional flows*.

Objectives

Addressing the issues within the river catchments relies on collaborative actions being taken to increase the volume and effectiveness of environmental flows released from the Snowy Hydro Scheme, improve inter-governmental governance arrangements, water take compliance, and implement water catchment management activities. Here, we have identified objectives related to Snowy Hydro operations to deliver these:

1. Ensure Snowy Hydro considers and addresses its impacts on waterways in relation to social, environmental and cultural outcomes.
2. Improve the ecological, social and cultural conditions of the Snowy and montane rivers impacted by the scheme.

To achieve these objectives and to increase the volume and effectiveness of environmental flows released from the Snowy Hydro, there are identified short- and long-term actions including:

1. Short term - variations under Clauses 10.4 of the **Snowy Water Licence** to allow more flexible delivery of flows. However, this variation would require either agreement with Snowy Hydro or payment of compensation by New South Wales to Snowy Hydro under the Snowy Compensation Deed.
2. Short term – Ensure that Snowy Hydro considers and addresses the impacts of the scheme on waterways in relation to social, environmental and cultural outcomes by rewriting the Statement of Expectations.
3. Long term - review the **Snowy Water Inquiry Outcomes Implementation Deed** and **Snowy Water Licence**, informed by robust options analysis to increase volume and flexibility in how flows can be managed to enable a shift to an adaptive management approach for environmental flows.

Below we provide further context and considerations in delivering the short- and long-term objectives and actions.

Snowy Hydro: Policy context and considerations

Snowy Hydro is a wholly owned Commonwealth company, bound by the **Corporations Act 2001**, and the **Public Governance, Performance and Accountability Act 2013**. As a Government Business Enterprise, Snowy Hydro is expected to provide a clear mandate and set of objectives that includes any requirements to meet the Government's social and economic policy objectives. Snowy Hydro has two shareholders: Commonwealth Minister for Finance and Commonwealth Minister for Energy. It is governed by an independent board of directors, separate from the shareholders. Shareholders can direct Snowy Hydro, but this is rarely done, and it requires a whole-of-government policy position.

The Snowy Hydro water operations are governed by the **Snowy Water Licence**, issued under Part 5 of the **Snowy Hydro Corporatisation Act 1997** (NSW). It is an operational licence which

sets out the obligations and rights of Snowy Hydro regarding capturing, diverting, storing and releasing water, and of NSW regarding regulation and enforcement.

Key considerations in reviewing and amending the Licence include:

- The Act requires NSW to review the Licence every 10 years.
- Amendments to the Licence must not be inconsistent with the SWIOID.
- The licence conditions can be amended by agreement with SHL.
- Where Snowy Hydro does not agree to amendments, the Licence allows them to seek compensation from NSW for any adverse financial impact. The quantification of compensation has not been tested and is considered challenging due to the complexities of, and interactions between, the scheme and energy market.
- Snowy Hydro are unlikely to support any licence amendments that result in reduced commercial outcomes..

The **Snowy Water Inquiry Outcomes Implementation Deed** (**SWIOID**) was the legal instrument entered into to give effect to the outcomes of the public Snowy Water Inquiry in 1998 and the corporatisation of the Snowy Scheme. The legally binding intergovernmental agreement between NSW, Victoria and the Commonwealth provides the framework for the implementation of the outcomes arising from the inquiry. The deed includes the water recovery targets for the Snowy, Murray and Snowy Montane Rivers Increased Flows programs.

Key considerations in reviewing the SWIOID include:

- SWIOID has not been reviewed since its inception in 2002 and has no formal review points.
- Can only be reviewed with agreement from all parties.
- The review process is resource intensive, and no funding stream currently exists.
- The SWIOID is operationalised through the Snowy Water Licence, any changes to SWIOID must be reflected by a similar change in the Licence, which in turn may give rise to compensation requirements.

The Snowy Hydro **Statement of Expectations** (SoE) outlines the Shareholder Ministers' expectations for energy production and distribution. Agreed by shareholder Ministers in 2021, it does not include any considerations of regional water security, environmental, social, economic or critical human water needs impacts.

SWIOID review: Environmental context and considerations

The SWIOID aims to improve river health through the delivery of environmental flows through three programs with the following targets:

- Snowy River Increased Flows (SRIF): Average of 212 GL per annum (21% of average natural flows).
- River Murray Increased Flows (RMIF): Up to 70 GL per annum.
- Snowy Montane Rivers Increased Flows (SMRIF): Volumes of up to the equivalent of 150 Gigawatt hours of foregone energy per annum.

Key considerations in setting environmental flows within the SWIOID include:

- Operates outside the Commonwealth water resources legislation (Water Act 2007 and Basin Plan 2012).
- Flow regime for the entire year is set 3 months before the year begins.
- There is limited flexibility in delivering the

environmental flows, no capacity to direct Snowy Hydro to allow adaptive water management (i.e. respond to changing conditions) and no capacity for carrying over water into the subsequent water year.

- In the Murrumbidgee River, environmental flow requirements can be substituted with base passing flows.
- No formal review points currently exist for reviewing the SWIOID and the SWIOID is outdated with respect to energy transition, climate change and hydrology.

It is important that environmental outcomes from environmental flows are enhanced through complementary improvements to land and water management downstream of Tantangara Dam. For example, land management to prevent ongoing sediment runoff from the catchment as a complementary action to address sedimentation in addition to the environmental flows.

SWIOID review: Economic context and considerations

The **Snowy Water Inquiry 1998** investigated a range of issues including environmental concerns arising from the altered flow patterns of the rivers and creeks caused by the operation of the Hydro-electric Scheme. The cost and benefit analysis had limited regard to downstream economic, environmental and social values. Additionally, a lack of transparency and understanding of the cost of a change to a rule versus cost of foregone energy. If this was clear, then it would inform decision making by the Commonwealth owners. Methods and data to inform detailed cost-benefit analysis have advanced significantly and could inform future reviews and the exploration of sustainable water management options. Key context for future Options Analyses:

- Independent analysis needed as Snowy Hydro operation and market decisions determine actual financial costs.
- Snowy 2.0 affects financial and system costs of increased downstream flows.
- Broader energy transition will affect short- and long-term energy system costs.
- Monetary estimates of increased flows downstream cost and benefits enable direct comparison with energy system trade-offs and other costs.
- High-quality, non-market valuation studies can be implemented to estimate willingness to pay for environmental and cultural flows.

Appendix E

Approach to Collaborative Decision Making

Collaborative decision making models: e.g., Structured Decision Making to improve the health of the upper Murrumbidgee

The Snowy Water Inquiry Outcomes Implementation Deed (the Deed) includes provisions that facilitate annual water releases for water users, environmental flows and flexibility for electricity generation. The Snowy Hydro Limited Sustainability Report 2023 articulates its role in balancing rights to manage water under the licence, and requirements for downstream economic, environmental, cultural and recreational uses. The proposed review of the Deed should enable a process for delivering on this sustainability objective and supporting downstream values and uses of the water resources. A common approach for conducting reviews is to put out a discussion paper, everyone submits their views, and a decision is made. These processes don't allow the collective to learn from each other to better understand the inputs and trade-offs made during the process.

A need for a collaborative, structured and balanced approach to the Deed review

The legislative and policy environment surrounding the Snowy Hydro Limited (SHL) operations is complex, with multiple instruments and stakeholders. Existing operations under the Deed, and correspondingly the Snowy Water Licence, has resulted in unacceptable impacts on the environment, urban water supply, water quality and regional development.

Changes to the operation of the Deed would have corresponding impacts (positive and negative) that should be explored through a structured approach and founded on robust evidence. The outcome of a Review that is not conducted through a transparent process can be expected to be contested by affected stakeholders.

Decision making models have been widely used in water planning to support explicit consideration of trade-offs in complex decision situations. Structured collaborative processes that provide opportunity for stakeholder participation can foster shared understanding and potential acceptance of the trade-offs and ensure best available scientific evidence is used to inform decision-making. There are several collaborative decision-making models that could be used, with structured decision making being one available approach.

Structured Decision Making (SDM)

SDM is an accepted organised approach for working together to make informed and transparent choices in complex decision situations. It is designed to help people/

groups work together on complex decisions, helping them clarify objectives, identify creative alternatives, and evaluate how well different objectives are satisfied by different alternatives.

Outcomes from adopting SDM into the Deed review

SDM provides a collaborative process for exploring management options, uncertainties and trade-offs. It builds shared understanding amongst stakeholders of complex data and analysis, and promotes respectful deliberation about difficult value-based trade-offs and choices.

The decision on changes to the Deed and water resource sharing remains the responsibility of the respective governments. The SDM process would provide information to support government deliberations.

Overview of SDM process

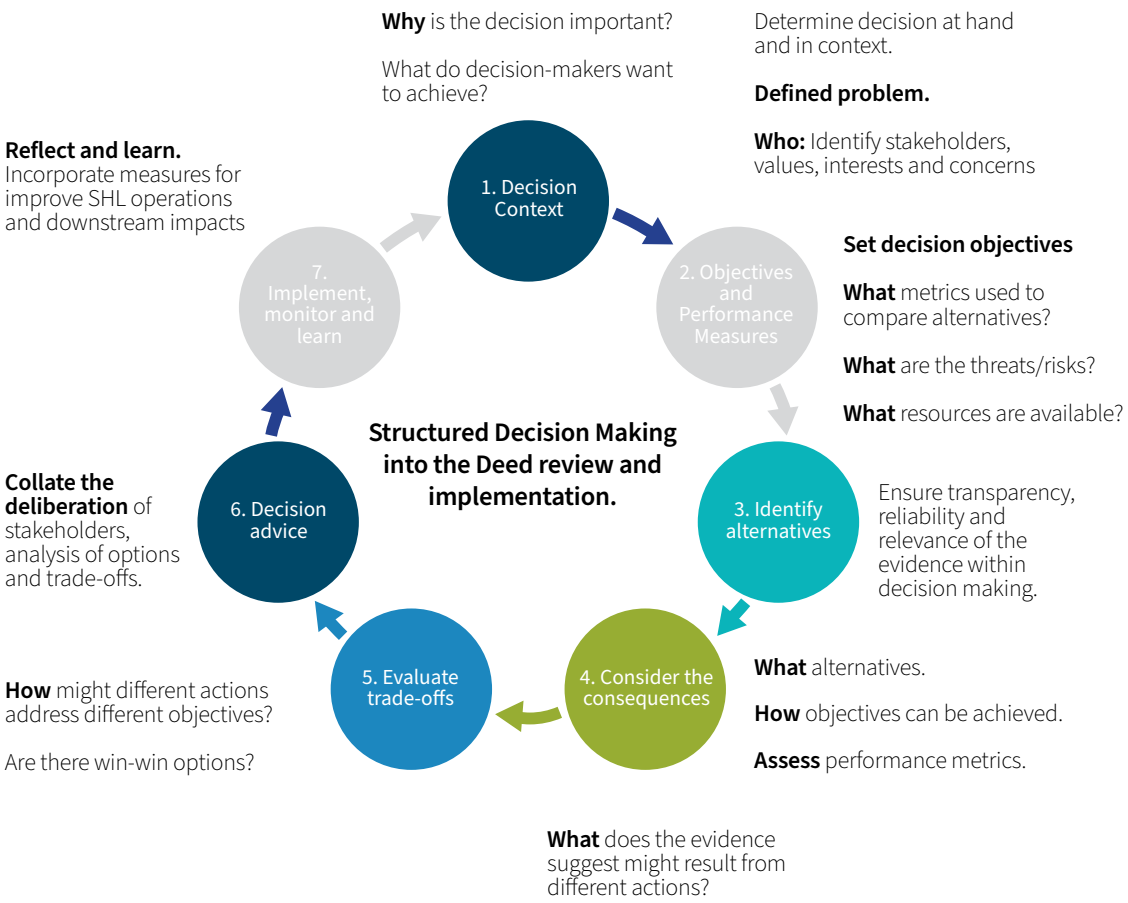
Structured Decision Making in context of the Deed review:

SDM enables identified stakeholders to work together to objectively canvass and analyse management options and document the evidence-based analysis for government consideration.

An independent, transparent structured decision-making process that includes the community, experts and agency staff would include:

- Define the decision context: Document the multiple values of the rivers and water resources, define the problem (impacts), and agree on a set of principles and the scope of the Deed review.
- Objectives and performance measures: Set the objectives and performance measures for assessing options with respect to hydro-electricity generation and downstream values and uses.
- Develop alternatives: Identify management options (operational changes), model and analyse these options against the performance measures.
- Estimate consequences: Document the consequences and risks to the identified values from current operations and for each alternative option.
- Evaluate trade-offs: Evaluate the proposed alternatives (short-listed options) using comparative techniques such as cost benefit analysis, to weigh-up the impact of changes in operations on energy generation and other water outcomes.
- Decision advice: Collate the deliberation of stakeholders, analysis of options and trade-offs for governments.
- Implement, monitor and learn: Incorporate post-decision monitoring, evaluation and review (future) processes into the implementation of the Deed to enable adaptive management and refinements of water resource management.

Collaborative decision-making models: e.g., Structured Decision Making to improve the health of the upper Murrumbidgee



Appendix F

Submission to Murray-Darling Basin Authority Water Reform: Public consultation on ideas to deliver the Basin Plan

Summary

To improve environmental outcomes in the upper Murrumbidgee River, with downstream benefits in the southern connected basin, the ACT and Region Catchment Management Coordination Group considers it imperative to increase the quantity and improve the timing, quality and flexibility of water releases from Tantangara Dam.

The option is provided as two components: (1) improving the effectiveness of existing planned environmental water releases from Tantangara Dam; and (2) changes to Snowy operations that could increase the volume of water in the upper Murrumbidgee.

Both options require policy changes through revisions to the Deed that values environmental sustainability in the receiving environment, changes to the Snowy Water Licence enabling flexibility in operation, and improvement in measurement and monitoring of water releases.

Options to increase the volume of water in the upper Murrumbidgee may include, but not limited to: changes in the operations that increase the spill from Tantangara Dam under wet conditions, and sharing Required Annual Releases with the upper Murrumbidgee River.

To optimise outcomes for energy generation and sustainability for the downstream environment/ communities, requires additional analysis with access to modelling and data on the current and future (Snowy 2.0) operations.

Barriers, challenges, or risks to implementation

The ACT and Region Catchment Management Coordination Group is aware that currently the Tantangara Dam and other Snowy Hydro storages are not included in the Basin Plan and that the Basin Plan cannot be inconsistent with the Snowy Water Licence.

The Catchment Group considers it to be important that the Australian and NSW Governments review the Snowy Water Licence to align it with the objectives of the Basin Plan and to improve environmental, social and cultural outcomes in the upper Murrumbidgee River and the ACT Region. To facilitate this occurring, there is a need for the Snowy Water Inquiry Outcomes Implementation Deed (Deed) (2002) to be amended and a new Statement of Expectations for Snowy Hydro Limited (2021) to be developed to reflect the current Government's values.

Access to the hydrological model, model outputs and data for snowy operations (current and future) is required to fully canvass the opportunities to optimise water management. This information is not available.

Regulated water releases from Tantangara Dam are not gauged directly downstream of the dam.

This may create errors in the volume of water released and monitoring of compliance with the Snowy Water Inquiry Outcomes Implementation Deed (Deed) and Snowy Water Licence.

There is no avenue for community to engage on a review of Snowy operations or on options analysis that may facilitate improvements to the Snowy operations.

Submission

Submission question: In detail, describe your idea or concept that could help with delivering the Murray-Darling Basin Plan's 450GL water recovery target or create water efficiencies and environmental outcomes with less water.

This idea includes two components:

1. Improving the effectiveness of existing planned environmental water through changes to policy, licencing conditions and installation of river gauging infrastructure to enable better monitoring and measurement of environmental releases.

Improving the timing and flexibility of environmental flows would provide enhanced environmental outcomes in the upper Murrumbidgee and southern connected basin using the existing volume of planned environmental water (PEW) that is released from Tantangara Dam.

Greater flexibility in operational planning and management would allow releases to be adapted to take advantage of prevailing natural flow conditions within the River downstream of the dam. Improving the flexibility of operations requires review and amendment to the Deed and Snowy Water Licence.

Installation of gauging directly downstream of the dam allows for the accurate real-time measurement of releases to ensure full effective delivery of the existing environmental water provision.

Environmental water released from the dam requires protection from extraction through the NSW (in development) and ACT (existing protections). Changes to accounting rules within Burrinjuck Dam could recognise the Tantangara dam water as an inflow that could then be managed to provide benefits for

the southern connected basin as: (a) PEW for translucent/transparent release, or (b) held environmental water for active management by environmental water managers.

2. Increasing the volume of releases from Tantangara Dam through changes in Snowy operations. Increases in the volume of water released into the upper Murrumbidgee River would also require implementation of option 1 above.

Maintaining higher storage levels in Tantangara dam may facilitate increased spills during wet conditions. Spills supplement and enhance natural events generated by downstream rainfall run-off events.

Require Annual Releases (RAR) could, in part, be redirected to/shared with the upper Murrumbidgee River. This could result in improved environmental outcomes for the Tumut River (impacted by an excess of flow) and the Murrumbidgee River (requiring increased flow). The total volume of water requiring to be released by Snowy may not be increased if managed holistically.

Implementing the two options above could provide significant complementary benefits depending on the approach taken:

a. Additional water released from Tantangara Dam could be provided as a cultural flow,

managed by First Nations for supporting cultural values and uses. Entitalising this additional release would contribute to governments Closing the Gap commitments (Inland water target)

b. Maintain minimum baseflow conditions under extreme dry conditions – providing drought refuge for environmental outcomes and critical human water needs

c. Increased flushing flows for maintaining water quality

The Basin Plan and Snowy Water Licence, and the operation of Tantangara Dam, should be harmonised to ensure that water flows support consistent environmental, cultural and social targets. Flows should be adequate to support threatened native species in the upper Murrumbidgee River, meet critical human needs even in dry years and meet human health guidelines at all times. These fundamental needs have not been met under the current operation of Tantangara Dam.

While recognising that this proposal requires action outside the Basin Plan, the Coordination Group considers it essential for meeting Basin Plan objectives, and urges the Australian and NSW governments to take action to improve the timing, quality and flexibility of environmental flows from Tantangara Dam.

Appendix G

Financial Report

Summary	
Income – members contributions (2023–24)	$120,000
Expenditure (2023–24)	$13,540
Balance (2023–24)	$106,460
Balance carried over from 2019–2023	$239,808
Total (Available funds)	**$346,268**

Income – Invoiced contribution	**2023–24**
Total	$120,000
Snowy Monaro Regional Council	$13,000
Queanbeyan- Palerang Regional Council	$13,000
South East Local Land Services	$13,000
Yass Valley Council	$13,000
National Capital Authority	$34,000
Icon Water Ltd	$34,000
Expenditure – By project	2023–24
Annual Report 2022–23	$13,540
(A)Balance (2023–24)	$106,460
(A)Balance carried over from 2019–2023	$239,808
Total (Available funds)	**$346,268**