

ACT and Region
Catchment Management
Coordination Group

Annual Report 2022–23

















Cover image: A group photo at Tharwa during the upper Murrumbidgee Catchment Field Trip. The trip was attended by the ACT Minister for Water, Energy and Emissions Reduction, members of the ACT and Region Coordination Management Coordination Group, a Ngunnawal Traditional Custodian, community members, and participants from several organisations, including Upper Murrumbidgee Catchment Network, ACT Natural Resource Management, ACT Parks and Conservation Service, Snowy Hydro Limited, Australian River Restoration Centre, and the upper Murrumbidgee Demonstration Reach, including a special feature from the Murray Cod model highlighting the important endemic species of the upper Murrumbidgee River.

Photo credit: ACT and Region Catchment Management Coordination Group.

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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.

I am pleased to present the 2022-23 Annual Report for the ACT and Region Catchment Management Coordination Group (the Coordination Group). This report outlines the actions progressed in the past year 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.

The Coordination Group's geographical area of interest is the upper Murrumbidgee Catchment,1 which has important cultural, economic, social and environmental values that significantly influence the sustainability and wellbeing of the ACT, the surrounding region, and more broadly, the Murray-Darling Basin.

Unfortunately, this catchment's and the upper Murrumbidgee River's health has declined in recent decades. This concerns the Coordination Group, given that pressures on these resources will continue to increase due to our changing climate and regional growth. While good governance, scientific-based catchment and waterway management through

partnerships between government, industry, research institutions and the community have always been important to address such pressures, these are even more important now given our vulnerabilities.

A key outcome of this year has been a focus on governance to ensure we are in the best place to respond to these challenges and pressures. For the first time, the ACT now has a dedicated Office of Water (OoW) to provide strategic leadership and be a single point of contact within the government on water management issues. The OoW has already commenced work on its Water Vulnerability Assessments project, which aims to derive new information on future risks to our water security; and develop new analytical tools to strengthen water policy and planning capacity.

As part of the water governance reforms, considering the best way to support a holistic and coordinated inter-jurisdictional approach to water management, the Coordination Group's regional focus is to be strengthened (see Case Study 1 on page 19). This is welcomed and provides a basis for building on our achievements and meeting our future challenges. Changes in governance arrangements come into effect in July 2023.

In this financial year, Coordination Group members continued their momentum to deliver significant achievements in progressing actions in the Catchment Strategy, some of which are presented in this report as case studies.

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.

These case studies show the depth of collective efforts and the challenges we are trying to address.

The Coordination Group held a number of valuable meetings this year to progress these actions and future direction:

- **Quarter one** Meeting #1 held on Wednesday, 14 September 2022
- Quarter two Meeting #2 and a field trip to Tharwa on Thursday, 15 December 2022
- Quarter three Meeting #3 held on Wednesday, 15 March 2023
- Quarter four Meeting #4 held on Thursday, 29 June 2023.

I want to thank members for attending meetings as well as our guests and presenters. These sessions have been 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.

As we move into the next financial year, and due to the review of water governance arrangements, there will be a change in the group's membership. I want to thank and acknowledge all members for working towards our vision and supporting the streamlining of the Coordination Group's governance to reinforce its inter-jurisdictional regional focus.

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

66 We are very fortunate to have such a diverse and engaged membership who bring expertise in water quality and security, catchment management, policy, planning, ecological management and regional development. ""



The Chair and Secretariat with a Murray Cod model at Tharwa during the upper Murrumbidgee Catchment Field Trip.

with me and other group members. I'd also like to thank the Minister for asking the Federal and NSW Governments to work with the ACT to improve the condition of the upper Murrumbidgee River, among other important actions:

- Revising the Snowy Hydro Statement of Expectations (2021) to embed the principles of ecological and social sustainability within the operating ethos of Snowy Hydro Limited.
- Conducting a review of the Snowy Water Inquiry Outcomes Implementation Deed in 2023-24 and implementing the review findings through the NSW Snowy Water Licence.
- Amending the NSW Water Sharing Plan for the Unregulated River Water Source to protect environmental flows between the Tantangara Dam and the ACT.
- Providing an opportunity for First Nations participation in decision-making relating to the management of the upper Murrumbidgee River, including identifying the cultural values, cultural flow requirements and management options.

I would also like to thank:

- Mr Ryan Breen from the OoW, Environment, Planning and Sustainable Development Directorate (EPSDD), for his strong support to the Coordination Group in providing strategic leadership and technical advice.
- Ms Rinzin Lhamo from the OoW, EPSDD, for her strong support and invaluable contributions in her role as Secretariat. Rinzin is the 'glue' that facilitates the Coordination Group working so effectively and efficiently.
- Mr Andy Lowes, Chair of the Upper Murrumbidgee Catchment Network (UMCN), for supporting the Coordination Group by providing an important link with the community.
- Emeritus Professor John Rodger, Chair of the Snowy Advisory Committee (SAC), for inviting me to observe at SAC meetings and attend their upper Murrumbidgee River Field Trip so that our two advisory bodies could assist each other.
- Ms Karissa Preuss, for her strong support to the Coordination Group in her role as the community representative. Karissa stepped down as community representative in mid-2022-23.
 - During her time as the community representative, she brought an in-depth understanding of grass-roots community Landcare matters. This was gained from being CEO of Landcare ACT and working closely with the ACT's three Catchment Groups (Ginninderra, Molonglo and Southern ACT), who directly support the approximately 100 community Landcare groups and thousands of volunteers who are maintaining and improving catchment health. This work in 2022-23 will be boosted by a Commonwealth Government Urban Rivers and Catchment Program grant of \$2.7 million over 3.5 years to Landcare ACT, which will work in partnership with the Catchment Groups.
 - There will be another round of funding under the Urban Rivers and Catchment Program, and the Coordination Group will encourage grant applications to be targeted to high-priority sites, including along the upper Murrumbidgee River.

• The ongoing work of volunteers is invaluable, and I take this opportunity to thank them for what they do.

2022-23 Highlights

All priorities presented in the 2021-22 Annual Report for 2022-23 have been progressed. The highlights include:

Shaping the next regional plan

- Actions 10 and 12 in the Catchment Strategy

The Coordination Group supported key directions in the Draft South East and Tablelands Regional Plan 2041 (Draft Plan 2041) that covers the ACT and surrounding region. These included supporting the natural environment being 'at the heart of planning and decision-making' and the region operating as a borderless, connected region with collaborative planning processes. However, in the Coordination Group's submission, we called for a greater emphasis to be given to managing inland waterways. We also raised the need to change governance and management practices to better protect the health of the upper Murrumbidgee River and provide greater water security for the region. Additionally, as the Draft Plan 2041 espoused, 'innovation in sustainable practices', so we recommended that priority be given to identifying what these practices are in relation to balancing the generation of renewable hydro energy with having a healthy river system that supports cultural, environmental, social, economic and water supply outcomes. A copy of our submission is in **Appendix C** on Page 45.

66

The Coordination Group is ever mindful of the effect climate change has on our catchments, waterways and water security. "?"

Climate Change and Vulnerability

- Actions 4 and 12 in the Catchment Strategy

The Coordination Group is ever mindful of the effect climate change has on our catchments, waterways and water security. It particularly appreciated a presentation by the Bureau of Metrology (BoM) in early 2022-23 that provided a context for many of the matters the Coordination Group considered this financial year. Matters explored included flood risk and management, vulnerability analysis, water security, flow releases from Tantangara for the upper Murrumbidgee River and the potential impacts of Snowy 2.0.

Upper Murrumbidgee Catchment Field Trip

- Actions 7, 9 and 14 in the Catchment Strategy

A significant highlight for both myself as Chair and the Coordination Group was our upper Murrumbidgee Catchment Field Trip. In December 2022, the Coordination Group arranged a field trip to consider water matters in the upper Murrumbidgee Catchment. The trip was attended by the Minister, members of the Coordination Group, a Ngunnawal Traditional Custodian, community members, and members from several organisations, including UMCN, ACT Natural Resource Management (NRM), ACT Parks and Conservation Service, Snowy Hydro Limited, Australian River Restoration Centre, and the upper Murrumbidgee Demonstration Reach.

The upper Murrumbidgee River ceased to flow in 2019-20, and in a drought, this river is a key water source, after Cotter, Googong and Bendora Dams, for the ACT and surrounding region.

Key discussions during the field trip included the following.

- Upper Murrumbidgee River water quality, quantity, and security. Comments raised throughout the field trip included:
 - Acknowledging the many values of the river.
 - Ecological habitat loss.
 - Reduction in abundance and diversity of fish species.
 - Impacts on community water security.

66 The big challenge is how to achieve a sustainable upper Murrumbidgee River to ensure cultural, environmental, economic and community values are protected, provide water security for the ACT and surrounding region, and generate renewable hydro energy. ""

- An explanation of the Rivers of Carbon Restoration project with participants observing habitation restoration actions such as tree planting, watercourse stabilisation and new fencing. This project aims to build resilience to drought by establishing drought refuges on ACT farms through improved riparian management.
- The operation of Tantangara Dam as part of the Snowy Hydro Scheme has an unsustainable effect on the environment and communities that depend on the upper Murrumbidgee River. The declining river health is primarily due to more than 90% of the headwater flow in the upper Murrumbidgee being retained in Tantangara Dam for use in electricity generation and then irrigation. The water is captured in Tantangara Reservoir, where it is diverted to Lake Eucumbene and then used to generate electricity by dams and power stations on the Tumut River before returning to the Murrumbidgee near Gundagai. As more than 90% of the annual flow is diverted, 320km of the upper Murrumbidgee River has very limited flows. The effectiveness of that which is released is constrained due to the timing of planning and structural limitations of the release outlet. The big challenge is how to achieve a sustainable upper Murrumbidgee River to ensure cultural, environmental, economic and community values are protected, provide water security for the ACT and surrounding region, and generate renewable hydro energy.

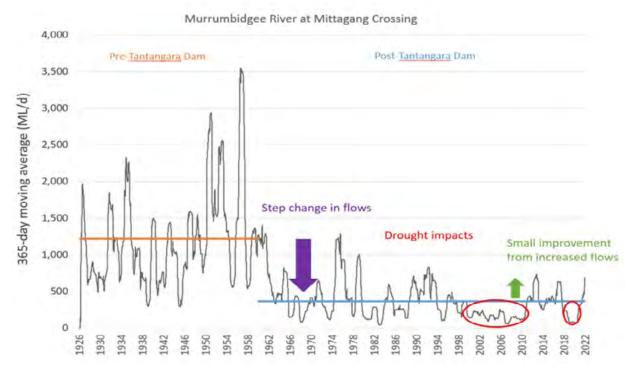


Figure 1: Graph showing the change in flows in the Murrumbidgee River at Mittagang Crossing. *Graph source: Upper Murrumbidgee Catchment Network, 2023.*

- Matters in NSW that restrict flows in the upper Murrumbidgee River reaching the ACT border. These are:
 - The growth in farm dam interception by NSW peri-urban development fringing the ACT border, particularly in the upper Molonglo catchment.
 - The lack of protection of environmental water in NSW downstream of Tantangara Reservoir to the ACT border.
- The cultural value of the upper Murrumbidgee
 Catchment and River for the Ngunnawal people,
 who maintain a strong connection to these,
 and are actively involved in management and
 protection through, for example, Aboriginal
 Waterways Assessments (AWA). Case Study 7
 on page 32 highlights the significance of these
 assessments. The field trip group noted that the
 Ngarigo people also have significant ties to the
 upper Murrumbidgee Catchment.
- The important role of the Coordination Group in identifying matters and calling for changes to improve conditions through providing submissions on Commonwealth, NSW and ACT legislation and policies and advising the ACT Minister.

2023-24 Priorities

For 2023-24, I look forward to working with the Coordination Group to:

- Implement the ACT Water Governance Reforms relating to the Coordination Group. This will focus on inter-jurisdictional coordination, improved functions and membership, including a new community representative, a water expert and a Ngunnawal representative on the Coordination Group (Actions 1 and 14 of the Catchment Strategy). **Case Study 1** on page 19 outlines the governance reforms.
- Revise the Catchment Strategy, which will be used to develop an Annual Statement of Priorities (Action 4 of the Catchment Strategy). Until the review is completed, the current Strategy will provide the basis for guiding the Coordination Group's priorities for 2023-24.
- Develop a new inter-jurisdictional investment and resourcing framework (Action 1 in the Catchment Strategy), which will inform resourcing opportunities for the Coordination Group, provide guidance on member voluntary contributions and develop an investment plan for improved catchment management.

- Working with OoW to support the Water Vulnerability Assessment project (Action 4 in the Catchment Strategy) and the ACT Water Strategy refresh project
- 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).
- Continue building our knowledge on catchments and waterways and identify and advocate for ways to better protect their cultural, environmental, ecological and social values.
- Pursue developing policies, plans and management practices that achieve a sustainable upper Murrumbidgee Catchment and River.
- The importance of renewable energy generation is recognised. However, it is essential that hydro power storages are operated in ways that contribute to sustainable rivers and catchment management, provide water security for downstream communities, and respect the cultural needs of First Nations people. The operation of Tantangara Dam should not continue to reduce environmental and cultural values and water security in the region (Action 13 in the Catchment Strategy).

Details of priorities for 2023-24 are outlined in section 5 on page 37.

Yarra

Dr Maxine Cooper

Independent Chair September 2023

Murrumbidgee River at Tharwa Bridge. Image credit: F. Spiers





1. Background

The ACT and Region Catchment Management Coordination Group (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 is also 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 $2018)^3$
- ACT-Queanbeyan Palerang Regional Council (QPRC) Letter of Intent (first signed in 2016, recommitted to in 2023.4

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 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 there is close cooperation and collaboration between the ACT and CRJO councils.
- 4 The QPRC 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 on a regional

This report outlines the activities of the Coordination Group from 1 July 2022 to 30 June 2023, and fulfils the Coordination Group's obligations under Section 67D of the Water Resources Act 2007.

Coordination Group functions

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 aims to:

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

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 interjurisdiction and interagency issues.
- Provide advice on opportunities to align national, regional and territory investment in the context of integrated catchment management.
- Foster the implementation of the Catchment Strategy.

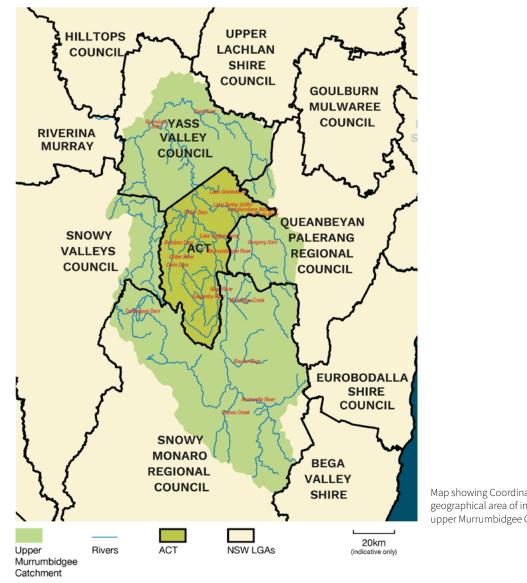
- Provide advice on proposed developments in terms of their likely impacts and strategies and actions to mitigate any risk to catchment health.
- Undertake other matters as determined by the ACT Minister for Water, Energy and Emissions Reduction.

Coordination Group's geographical area of interest

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

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

The upper Murrumbidgee Catchment covers approximately 14,000 km², with its headwaters originating above Adaminaby and flowing through to Burrinjuck Dam.



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

2. Membership

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

Ms Karissa Preuss

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. Ms Preuss was appointed to the role of independent Community Representative in November 2019 and continued until the expiry of her term in November 2022.5 The Coordination Group thank Ms Preuss for her invaluable contributions and leadership on community matters.

ACT Emergency Services Agency

Commissioner, Ms Georgeina Whelan - Proxy is SES Chief Officer, Mr Anthony Draheim

The Emergency Services Agency (ESA) comprises the ACT Ambulance Service, ACT Fire and Rescue, the ACT Rural Fire Service, the ACT State Emergency Service and ESA Support Services. The ESA plays a key role in helping the Coordination Group understand the impacts of natural disasters on our Region's catchments, specifically in relation to flooding and improving flood management, and in the planning required for and managing emergency events such as storms and bushfires.

ACT Health Directorate

Director-General, Rebecca Cross - Proxy is Executive Branch Manager, Health **Protection Service, Mr Victor Martin**

The Health Directorate protects and promotes the good health of the ACT community by fostering safe and healthy environments. It provides information, policy development, monitoring and enforcement in relation to public health activities, including the Guidelines for Recreational Water Quality. The Health Directorate guides the Coordination Group's understanding of these issues in relation to water. It provides a framework for the management of recreational water sites within the ACT, addressing the specific risks from blue green algae as well as microbial pathogens.

⁵ Due to the water governance reforms, the appointment to the community representative position was delayed. During the interim vacancy period, community views on the Coordination Group were represented by the Chair of the UMCN as an observer.

ACT Chief Minister, Treasury and Economic Development Directorate

Head of Service, Ms Kathy Leigh - Proxy is the Executive Branch Manager, Economic and Regional Policy, Dr David Clapham

The Chief Minister, Treasury and Economic Development Directorate (CMTEDD) manages and coordinates intergovernmental forums and the ACT's relationships with other jurisdictions, most significantly with the Australian and NSW governments and surrounding NSW councils. It assists the Coordination Group's understanding of key interjurisdictional issues, particularly the role that water (supply, quality and security) plays in future regional growth and development.

ACT Environment, Planning and Sustainable Development Directorate

Director-General, Mr Ben Ponton - Proxy is **Deputy Director-General, Environment, Water** and Emissions Reduction, Mr Geoffrey Rutledge

The 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 Principal 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 Sally Barnes - Proxies are Director, Estate Management, Mr Peter Beutel and NCA Lake and Dam Manager, 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 Planning and **Environment**

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

The NSW Department of Planning and Environment (NSW DPE) 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 DPE also ensure 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.

ACT Transport Canberra and City Services

Director-General, Ms Alison Playford - Proxy is **Deputy Director General, City Services, Mr Jim** Corrigan

The Transport Canberra and City Services (TCCS) is responsible for managing the ongoing maintenance of Canberra's urban lakes and ponds, including the management of stormwater infrastructure incorporating Gross Pollutant Traps, wetlands and stormwater channels. It also provides services to manage the Territory's waste collection and other infrastructure. The TCCS brings very practical advice to the Coordination Group about managing water in the urban environment.

NSW South East Local Land Services

General Manager, Mr Luke Pope - Proxy is Stakeholder and Investment Coordinator, 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

General Manager, Ms Rebecca Ryan – Proxy is Director Infrastructure Services, Mr Phil Hansen.

Snowy Monaro Regional Council

Chief Operating Officer, Mr Jeff Morgan - 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 Rogers.

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 interjurisdictional catchment.

Additional attendees

On a regular basis, and by invitation, significant contributions of knowledge and expertise are shared and supplied to the Coordination Group from:

- ACT Environment Protection Authority Dr Su Wild-River
- ACT Commissioner for Sustainability and the Environment - Dr Sophie Lewis
- Dhawura Ngunnawal Caring for Country Committee - Mr Bradley Bell
- Upper Murrumbidgee Catchment Network Chair Mr Andy Lowes.

3. Resourcing

Secretariat services and support are provided for the Coordination Group on an ongoing basis through the OoW within the Environment, Heritage and Water (EHW) Division of the EPSDD.

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

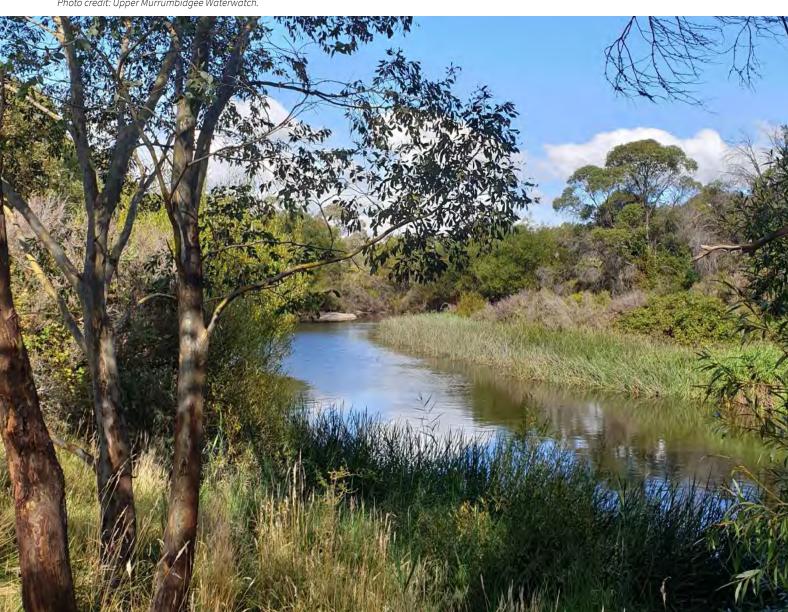
Both the Chair's and the Community Representative's positions, being independently appointed, receive honorariums as determined under the *Remuneration Tribunal Determination* (Determination 13 of 2021). Both positions are funded from the EPSDD budget.

The upper Murrumbidgee River taken near Dry Plains on the river downstream of Tantangara Dam. *Photo credit: Upper Murrumbidgee Waterwatch.*

Activities related to the region's catchment management and improvement are supported through the Coordination Group's interjurisdictional investment and resourcing framework. Coordination Group members provide funds from their respective budgets into the Coordination Group fund. For 2022-23, total funds of \$215,700.00 were contributed by members. Funds are managed within a holding account by EPSDD.

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

The Coordination Group's financial report for the 2022-23 financial year is in **Appendix E** on page 49.



4. 2022-23 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 around five themes:

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

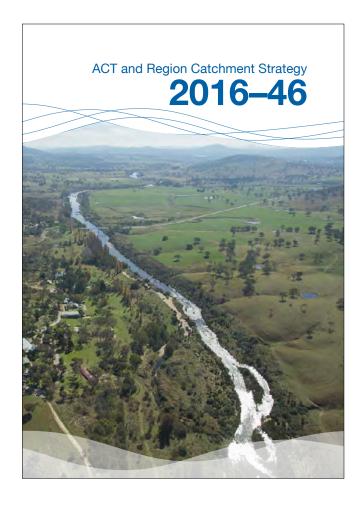
Communities — acknowledging the outstanding contribution that catchment groups and volunteer programs play in protecting our natural resources, motivating people to connect to their catchment and increasing their capacity to adapt to change.

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 2022-23, members of the Coordination Group continued to undertake significant work to implement the actions identified by the Catchment Strategy.



The Catchment Strategy can be found at environment.act.gov.au/water/water-strategiesand-plans/act-and-region-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 decisionmaking 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 consistent, considered and can maintain long-term collaboration to support water management in the Australian Capital Water Catchment Region.

Following the establishment of the OoW in June 2022, it undertook the review of the functions and membership of the Coordination Group as part of broader water governance reforms. The Coordination Group was consulted and briefed on this review, and the Coordination Group supported the changes. Information on the ACT Government's Water Governance Reforms can be found in Case Study 1 on page 19.

Other key governance activities undertaken during 2022-23 include:

- Increased funding to the UMCN to support key activities that contribute to (but not limited) to Action 3 and Action 4 of the Catchment Strategy. A summary of the UMCN activities and outcomes is provided in the UMCN Annual Report 2022-23 in Appendix A on page 39.
- Supported the OoW in refreshing the ACT Water Strategy 2014-44 (ACT Water Strategy) through the Chair's participation in the Project Advisory Group.

Case Study 1:

ACT Water Governance Reforms

In 2021-22, the EPSDD led a review of water governance arrangements to consider the best way to support a holistic and coordinated approach to water management in the ACT and surrounding region. The review identified issues relating to roles, responsibilities and accountabilities, capacity and capability, and inter-agency coordination and decision-making on cross-sectoral issues.

In June 2022, the OoW was established within the EHW Division of the EPSDD to provide a holistic and coordinated approach to water policy, planning and management.

The OoW is also leading the implementation of governance reforms identified in the 2021-22 review and will work across government to coordinate cross-sectoral water issues through comprehensive and collaborative approaches. Although in its infancy, the OoW is well-progressed in delivering reforms and new policy initiatives.

The Water Resources Act 2007 has been amended (effective as of 8 July 2023) to clarify the administrative responsibilities of the OoW relative to those of the ACT Environmental Protection Authority (EPA) and the Coordination Group's role. These amendments provide the OoW with the operating framework required to support a holistic and coordinated approach.

A review of existing governance forums has been undertaken, and work is progressing on the following:

• Establishing a Water Cross-Directorate Advisory Committee (Advisory Committee), which the head of the OoW will chair. The Advisory Committee will provide a coordinating and consultative environment for discussion on cross-agency water

- matters and is expected to have its inaugural meeting in the last quarter of 2023.
- Refreshing the Coordination Group with the following amendments:
 - a. Augmentation of the advisory function of the Coordination Group to advise the Minister and the Director-General on issues relating to water catchment management issues in the Australian Capital Water Catchment Region.⁶
 - b. Broadened membership to allow the flexibility to introduce new membership, including a First Nations representative, water expert and a community representative to support the independent advisory function of the Coordination Group.
 - c. The Advisory Committee and the Coordination Group will provide a forum for collective deliberation on cross-cutting water issues, strategic risk assessment and management, and integrated planning.

The reform and policy initiatives are timely and critical work. The initiatives commenced by the OoW are important steps.

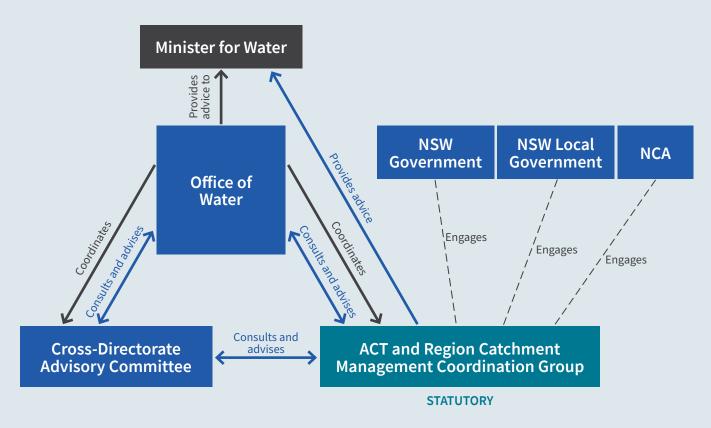
Work is ongoing on a range of other reforms and policies including, but not limited to:

• Developing a Monitoring, Evaluation and Reporting Framework, which will support the OoW by tracking progress in delivering against governance reforms, identifying areas for improvement, measuring the impact of interventions, and evaluating the efficacy of intervention.

⁶ The Australian Capital Water Catchment Region refers to the catchment area of the Murrumbidgee River upstream of Burrinjuck Dam and is the same as the upper Murrumbidgee Catchment.

- Improving information sharing between water sector entities and with the public. Discovery phase investigations have commenced to develop a Water Information Hub, which will be a reliable single source of truth for water-related data and information for the ACT Government and the community to access.
- Working with the First Nations community through the agreed pathway on the Ngunnawal Ngadjung Water Initiative and coordinating the preparation of the AWAs.
- A refresh of the ACT Water Strategy.

Figure 2: Governance structure of Water Governance Forums.



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.

Develop an integrated catchment Action 8: emergency response plan.

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

Action 7 continued to be a focus for the Coordination Group in 2022-23. As part of this focus, the Coordination Group continued to provide funding to, and work closely with the UMCN. The UMCN is a not-for-profit organisation that brings together community organisations with an interest in the management of the upper Murrumbidgee

Catchment. They help to facilitate conversations between these groups on issues such as water quality and security and positive ecological land management techniques to support catchment and river health.

Key activities undertaken by UMCN to collaborate and educate the community on a range of national resource management matters in 2022-23 are provided in the UMCN Annual Report 2022-23 in Appendix A on page 39.

The UMCN is a collective of organisations with a key interest in supporting stakeholders and the community. The Australian River Restoration Centre and the ACT NRM are two such organisations that partnered to implement the 'Gudgenby River project'. The project focuses on preparing agricultural properties for a sustainable future. Funding for the project is from the ACT Government's Healthy Waterways Program. Case Study 2 on page 23 provides further details on this important project.

Recognising UMCN's performance, the Coordination Group agreed to increase operational funding by \$9,000 in the 2022-23 financial year, taking the annual operational funding to \$55,000. The funding agreement is for three years. For additional information on the Coordination Group finances, see Appendix E on page 49.

Attendees participating in the discussions during the upper Murrumbidgee Catchment field trip.







Coordination Group upper Murrumbidgee River field trip sites.

While the Coordination Group directly funds UMCN, it recognises the importance of all community groups who advocate for and undertake actions to improve the health of catchments and waterways. Some of the Coordination Group's members fund local groups. For example, the EPSDD, through the ACT NRM, funds the ACT's three catchment groups (Ginninderra, Molonglo and Southern ACT). The Independent Community Representative Report in **Appendix D** on page 48 mentions these groups and their importance.

Building a community understanding of catchment health remained a significant priority for the Catchment Group, which is the focus of Action 9. In December 2022, the Coordination Group organised a field trip to Tharwa to discuss key issues relating to the upper Murrumbidgee Catchment River. This field trip was a significant milestone for the Coordination Group, bringing together the Minister, members of the Coordination Group, key stakeholders and community members.

As outlined in the Chair's foreword, this trip was a significant event for the Coordination Group. Attendees discussed the many values of the river, ecological habitat loss, and the reduction in the abundance and diversity of fish species and impacts on water security.

Following this trip, the Chair met with the Minister on 23 May 2023 to discuss issues related to the Upper Murrumbidgee River and to update on the activities of the Coordination Group.

The field trip had three site visits including:

- Stop one: Rivers of Carbon Rehabilitation Site, Naas
- Stop two: Namadgi Visitors Centre
- Stop three: Tharwa Bridge.

To further support Action 9, the Chair, along with the Australian River Restoration Centre (ARRC) representative, presented on the plight of the upper Murrumbidgee River (the Forgotten River) at the ACT Water Matters Conference held on 22 June 2023.

The Coordination Group also continued to focus on catchment emergency management. In September 2022, the ACT ESA presented to the Coordination Group on flood management in the ACT, including flood planning and response.

Dr Maxine Cooper and Andy Lowes at the 2023 ACT Water Matters Conference



Case Study 2: Rivers of Carbon – Gudgenby River

The Gudgenby River project is Rivers of Carbon's second partnership with the ACT NRM and builds upon the successful Rivers of Carbon – Naas River project. The goals for the Gudgenby River align with the ACT NRM's Healthy Waterways program, which focuses on preparing agricultural properties for a sustainable future. This is achieved by connecting landholders along the river to undertake riparian restoration projects for biodiversity, water quality and climate resilience benefits.

The Gudgenby River is located in southern ACT, formed by the confluence of Bogong Creek and Middle Creek. The river begins near the border of ACT and NSW in Namadgi National Park and

travels north and northeast, about 30 kilometres, to join the Murrumbidgee River near Tharwa township. The river has attracted fishers, bird watchers and others ready to enjoy the native fish populations of Murray cod and yabbies, the Scarlet and Flame Robins, and Wedgetail Eagles.

Why Gudgenby?

The Gudgenby River continues the work we began with the Naas River, which worked with landholders to protect and restore their stretch of the river. Across the ACT, river systems face significant pressure from increasing water temperatures, reduced average flows, flash flooding events, and subsequent erosion.



The actions to address these issues in the Naas River will now be used in collaboration with landholders living along the Gudgenby. The ACT Healthy Water Ways Program will support landholders with incentives for fencing, native revegetation, installation of alternative stock water, small-scale erosion works and minor woody weed removal. This

combination of activities will raise awareness of issues impacting the river, control stock access, revegetate and offer pathways for landholders to restore their rivers.

Rivers of Carbon is the on-ground component of the Australian River Restoration Centre.

Gudgenby River Project Area

Map of the Gudgenby River project area. Image source: Rivers of Carbon

4.3 Regional **Development**

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 2022-23, a focus on regional development continued with the ongoing delivery of longer-term projects to ensure regional capacity to implement and manage sustainable water infrastructure and catchment management planning for regional growth. These projects include:

- The review of the Yass Valley Water Source strategy. The review investigated current water availability in the Yass River and forecasted if the available water resources could cater for the Council's growth.
- Delivering ongoing long-term water projects to improve regional water infrastructure, including the Yass Water Treatment Plant Upgrade and the Yass Sewage Treatment Plant Augmentation. For more information about these projects and how they will improve regional water infrastructure, see Case Study 3 on page 26.
- The investigation to find additional town water supply to support the future growth of Bungendore. The QPRC is investigating a pipeline between east Queanbeyan and Bungendore as the long-term solution to the future water supply for Bungendore. For more information, see Case Study 4 on page 27.

To support Action 11, a staff member from the Urban Rivers and Catchments Program under the Commonwealth Department of Climate Change, Energy, the Environment and Water presented the Group on this program, including information on the second round of funding, which will open for applications in late 2023. The Urban Rivers and Catchments Program will fund projects including, but not limited to Riverbank restoration, improved biodiversity and revegetation, water quality improvement, improved connectivity, and stormwater pollutant management.

In 2022-23, the Coordination Group presented a submission to the South Region on the Draft South East and Tablelands Regional Plan 2041. The Coordination Group strongly supports this plan and its alignment with the Catchment Strategy. Read the full submission in **Appendix C** on page 45.

Case Study 3:

Yass Valley Council water projects

The Yass Valley Council has been working on several long-term related water projects to support water quality, security, planning and sustainability.

Yass Water Treatment Plant Upgrade

Since 2019, the Yass Valley Council has been working with the NSW DPE on upgrading the Yass Water Treatment Plant to address odour, discolouration and hardness issues. Stage 1 of the upgrade was completed in February 2023 and included:

• Installation of bubble plume aeration at the Yass





Upgrade of the raw water pump station





• Upgrade works at the Yass Water Treatment Plant.





The project's focus has now moved to developing a business case to inform the investment approach to further upgrade works based on a high-level concept design. This work is expected to be completed in December 2023.

Yass Sewage Treatment Plant Augmentation

The Yass Valley Council received grant funding under the State and Secure Water Program to prepare a concept plan for the augmentation of the Yass Sewage Treatment Plant to cater for growth in the Yass township. This project will be commenced in the 2023-24 financial year.

Yass Valley Water Source Strategy

The current water supply from the Yass River does not yield sufficient water supply for the expected growth in Yass Valley. The Yass Valley Council finalised a Water Source Strategy in October 2022.

The strategy examined and evaluated a range of options for additional water resources, including:

- Surface water options (off-river storage, Burrinjuck and ACT)
- Groundwater
- Recycled water
- Alternate water sources (including rainwater tanks, stormwater harvesting, aquifer recharge).

The preferred option is a water supply from the ACT to Murrumbateman.

The strategy, along with the Yass Valley Settlement Strategy, is currently being used in the discussions at the Cross Border Urban Water Steering Committee. The Yass Valley Council has also been using the strategy as part of its advocacy to the NSW, ACT and federal governments.

Case Study 4: Bungendore Water Supply

There is a critical need to find an additional town water supply to support the future growth of Bungendore. Without a sustainable water supply solution, the QPRC will need to press pause on any more development. A lack of water will prevent Bungendore from growing as planned, and the NSW Department of Planning has placed a moratorium to this effect.

To support Bungendore's needs, an additional annual entitlement of 1,000 ML/year and daily additional capacity of 4.5ML/day of water supply is required. These figures have been developed considering new housing BASIX standards, the QPRC planning requirements for a minimum 22.5kL tank for all new serviced residential lots, the historical impact of pricing as a demand management tool, improvements in water efficiency, and the impact of climate change.

This impasse is significant because it effectively curtails the region's vision for Bungendore, as reflected in its adopted Bungendore Structure Plan 2018-2048. At risk are an additional 1,711 new residential lots within the confines of this plan and a further 622 lots as an enquiry for land outside of the plan.

Council is investigating a pipeline between east Queanbeyan and Bungendore as the long-term solution to the future water supply for Bungendore.

A feasibility study has considered the viability, approvals pathway and the economics of the proposal, and Council have agreed to proceed with the next stage of investigation.

The proposed route would see a new water pumping station at the site of a former reservoir in east Queanbeyan. A set of 375mm and 300mm diameter water mains would then run through a series of



Aerial view of Bungendore.

Council-owned land, road reserves, community title land, private property, Crown land, watercourses and state roads.

The estimated capital cost is in the range of \$65 million. If it were to be constructed, the construction costs would be paid for by developer contributions received for water supply and/or by external grants.

In a strictly engineering sense, the physical challenges and constraints can be solved with careful design and construction. The ultimate viability of the project also depends on securing the required intergovernmental approvals to extract water from its Queanbeyan Water Supply Agreement. This agreement between the Australian, NSW and ACT Governments allows the QPRC to access bulk potable water from the ACT.

If constructed, the pipeline will require the establishment of easements from Queanbeyan to Bungendore. A preferred route has been designed that minimises impacts to landholders, with a large proportion along the road reserve, crown land, forestry and adjacent to the rail corridor across private land.

The QPRC has engaged NSW Public Works to investigate and arrange access to the land identified that will inform the investigation works. The various technical, environmental, geotechnical and heritage consultants commenced working on the project in June 2023 and will take approximately 12 months. If the project proceeds to construction, this is expected to take 18-24 months.

4.4 Water

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 2022-23. This was achieved through a range of actions undertaken during the period.

The Coordination Group prepared a submission on delivering the Murray-Darling Basin Plan (Basin Plan) to the Commonwealth Department of Climate Change, Energy, the Environment and Water. 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 was submitted in early July 2023 and will be included in the next Annual Report.

The following water focused activities were actioned by members of the Coordination Group in 2022-23:

- Icon Water reviewed its water supply strategy and water security modelling. More information about this strategy and security modelling review is outlined in Case Study 5 on page 30.
- The OoW is undertaking a Water Vulnerability Assessments project to support long-term water security for the ACT. The assessments will cover water supply, water quality, environmental and

socio-economic indicators. The project will provide an analytical tool for assessing the drivers of water security vulnerability and informing adaptation planning for climate change. Further information on the project is provided in Case Study 6 on page 31.

- The OoW has commenced a three-year project to conduct the Aboriginal Waterway Assessments within the ACT and surrounding region. These assessments are facilitated by the Ngunnawal people to document the health and communicate Ngunnawal values and uses for waterways in the ACT and region. Case Study 7 on page 32 provides more information on the project.
- The OoW, through its Healthy Waterways program, carried out various initiatives aimed at improving the health of Canberra's waterways. One of the key initiatives is the research works undertaken through the University of Canberra to determine the sources of nutrients in the Tuggeranong catchment. Based on research findings, a highlight action includes the construction of bioretention swales downstream of three playing fields in Kambah. More information on this action can be found in Case Study 8 on page 35.
- A cross border (ACT and NSW) committee has been established to discuss the current and future water allocation arrangements to manage crossborder water supply issues.

The Coordination Group was fortunate to have been provided with updates on key water related initiatives throughout their meetings in 2022-23. This includes the following:

- Dr Sophie Lewis, Commissioner for Sustainability and the Environment, presented on the State of ACT Lakes and Waterway report in September 2022.
- Rodger Whitby, Chief Operating Officer, Snowy Hydro Limited, presented on Snowy 2.0 and its potential effect on the upper Murrumbidgee River. The key message from the discussion notes that Snowy 2.0 will not affect the flow regime into the upper Murrumbidgee River as the project entails the creation of an additional new water path only.

- Ben Bryant from Icon Water presented on nutrient offsets in June 2022 to inform how the nutrient trading regime can deliver catchment benefits from an environmental, community and economic perspective.
- The Ngunnawal Water Policy Officer, EPSDD, presented on AWAs to the Coordination Group members on 15 March 2023 and also led a discussion with Regional Council members and
- their staff on 17 July 2023. See **Case Study 7** on page 32 for further information on the AWAs project.
- Patrick Paynter, EPSDD and David Rose from the ACT State Emergency Service presented on Strategic Flood Risk Management for the ACT in September 2022. The need for a Strategic Flood Risk Management Plan was highlighted to better manage flood risk in the ACT.



Case Study 5:

Icon Water – Water Security

Icon Water actively plans to ensure a resilient and secure water supply for Canberra by continually assessing Canberra's water security to ensure it can meet future population growth and mitigate the impacts of climate change and the risk of droughts.

The recent drought in Canberra (2017-20) was short but severe. It applied the greatest stress to the source water system in Canberra's history. Following the drought, Icon Water reviewed its water supply strategy and water security modelling. Icon Water's response was to update all components of the water resource model with reviewed assumptions, improved processes and up-to-date data. The rainfall runoff model was the only component that significantly impacted the water security assessment.

The updated model forecasts less water available in droughts, meaning the system is not as water secure in the medium to long term as previously assessed. This has resulted in two immediate responses:

- Icon Water changed the way it operates the water supply system by choosing where to source water from in a way that considers optimal storage as opposed to the lowest cost source.
- Icon Water also introduced triggers for transitioning from Permanent Water Conservation Measures to Temporary Water Restrictions at earlier storage level stages.

The community told us that water security is a high priority and they are willing to consider alternate water source options, like groundwater, purified recycled water, desalinated water and stormwater. But they are more comfortable with these types of options for watering green spaces, than for drinking water.



The updated water security modelling outcomes have also brought forward the timeframes for progressing investigations into Icon Water's next system augmentation, which is now forecast to be required around 2040. Icon Water is considering (in no particular order):

- More demand management programs
- Stormwater harvesting
- River pumping
- Enlargement or new dams
- Ground water sources
- Recycling water for non-drinking purposes
- Purified recycled water for drinking
- Desalinated ocean water.

Icon Water is planning to undertake stakeholder and community engagement through the coming year to help inform the selection of the next water source. Engagement will build on insights gathered through Icon Water's Let's Talk Water and Wastewater community and customer engagement program conducted in 2021.

Case Study 6:

Water Vulnerability Assessments

Long-term water security for the ACT is under significant pressure from climate change, population growth and urbanisation, and external policy drivers impacting available water resources. These impacts are observed as changes in river flow and water storage, a decline in fish populations and water quality that pose risks to human health. An acute understanding of how and to what extent these future risks may affect the water resources and related environmental systems is lacking, affecting confidence in evident-based water policy and planning.

The ACT Water Security Vulnerability Assessments Project, commissioned by the OoW, aims to:

- Derive new information on future risks to the ACT's water security.
- Develop new analytical tools that can be reapplied in the future to strengthen capacity in water policy and planning.

The project assesses the vulnerabilities of:

- a. Water supply and demand
- b. Water quality
- c. Aquatic and riparian ecosystems
- d. Water-related socioeconomic values in the ACT Water Management Areas to climate change, population growth and water resource development.

Water models and information on future projections, such as the NARCliM 1.5 climate change projections and population growth projections, are used to explore how the vulnerability indicators may change under different future conditions. Modelling and analytical tools are developed such that the assessments can be reproduced when new data and information becomes available. Insights generated from the assessment are expected to provide new quantitative evidence to support a range of policies, such as the Murray-Darling Basin Plan evaluation and review, water reforms under the National Water Initiatives. ACT Water Strategy refresh and the development of long-term environmental watering plans.

Vulnerability of

- Water supply and demand
- Water quality
- Aquatic and riparian ecosystems
- Water-related socioeconomic values

in

• ACT Water Management Areas



to

- Climate change
- Population growth and urbanisation
- Water resource development

Case Study 7:

Ngunnawal Traditional Custodians -Aboriginal Water Assessments

Over the past twelve months, Ngunnawal Traditional Custodians, working collaboratively with the Murray Lower Darling River Indigenous Nations (MLDRIN), have completed AWAs along the Muradbidji (upper Murrumbidgee River). These are the first of a series of AWAs to be undertaken from 2022-25. The ACT and NSW Governments and non-government organisations provide funding and in-kind support.

The AWAs capture the Ngunnawal Nation experience and cultural knowledge, and expresses Ngunnawal's water planning aspirations for Country. They are an important foundation for advocating for better management practices for the care and management of Country, and ultimately, securing cultural flows and water justice for the Ngunnawal Nation.

Information in AWA reports highlights changes to Ngunnawal Country over time, which strengthens the ability of Ngunnawal Traditional Owners to monitor and care for their waterways into the future. These reports also provide critical baseline and foundational information for Ngunnawal people to rely on to inform future projects and planning works, such as the development of Murabidji Ngunnawal Cultural Flows Management Plan.

The Ngunnawal people's water aspirations, including for 'Muradbidji', will be further developed in future AWAs to guide efforts to secure water justice. As the region continues to face the pressures of climate change, AWAs will provide an opportunity to better understand and monitor the waterways.

Information in AWA reports reflects the condition of Country and the findings of the Assessment Team at the time of the assessment. The content and findings in these reports remain the Cultural and Intellectual Property of the Ngunnawal Nation. They cannot be used by third parties for any purposes without the express consent of the Ngunnawal Nation.

The AWA Tool

The AWA is a tool for First Nations to consistently measure and prioritise river and wetland health so that Nation members are better placed to negotiate and advocate for their Country's water needs. For Traditional Owners to be effectively included in water planning procedures, rigorous mechanisms that go beyond the typical economic and environmental indicators that assist in explaining the value of water are essential. The AWA approach was established to meet this need for First Nations.

The AWA tool was developed collaboratively by MLDRIN, the Northern Basin Aboriginal Nations (NBAN) and the Murray-Darling Basin Authority. The AWA tool draws on an established methodology, the Māori Cultural Health Index (CHI), and was developed in consultation with Dr Gail Tipa, the Māori researcher who led the establishment of the Māori CHL

Data collection and analysis

Quantitative data

An AWA is undertaken at a site using an application on handheld tablets, which prompts the Assessment Team members to provide quantitative 'scores' under two broad categories:

a. Waterway Health

b. Cultural Values and Uses.

For the Waterway Health category, Assessment Team members answer a questionnaire with 11 questions about the environmental condition of the river or wetland at each site. For the Cultural Values and Uses category, Assessment Team members provide a rating for each site using a table of 14 different categories of Values and Uses.

To derive an overall average site score for each category, the individual ratings provided by each Assessment Team member are averaged. Then,

the average site score is converted to a percentage score, with 100% being the maximum possible score for each category, indicating perfect health.

Qualitative data

In addition to the quantitative site scores, an analysis of the qualitative data (such as stories, observations and other information included in the Assessment Team's responses to the AWA questions) is undertaken to draw out key themes identified by participants at each site.

A special thank you to the Ngunnawal Assessment Team for sharing their knowledge, expertise and love of Country. From left to right: Jacob Connolly, Justin Reid (back), Uncle Richard Bell, Tyahn Bell, Aunty Lillian Bell, Stella Bell-Garner, Bradley Bell, Adrian Brown, Bradley Mapiva-Brown.

The AWA took place on the 26 August 2022. Working collaboratively with the MLDRIN, Ngunnawal Traditional Owners used the AWA methodology to assess and document two sites located on the Muradbidji, and is the first of a series of AWAs to be undertaken by the Ngunnawal Nation from 2022 to 2025.



The qualitative AWA data is broadly grouped under the following three categories:

a. Values

Tangible and intangible features of a site that are valued by the assessment team. These may relate to cultural traditions, ongoing use, or environmental conditions.

b. Threats

Processes or activities that are damaging or may damage the values of a site.

c. Objectives

Aspirations for the management of a site and/or the connected landscape that may reduce threats and/or support the values.

The qualitative analysis is an important step to further understand and give meaning to the quantitative Waterway Health and Cultural Values and Uses scores for each site. By organising the Assessment Team's qualitative data under the above three categories, Traditional Owners are better placed to identify and pursue fit-for-purpose and tailored waterway management and planning opportunities that support cultural values and uses, mitigate and resolve threats, and align with and support desired culturally appropriate objectives. As a result, Traditional Owners are better positioned to continue:

- Assert their rights to water justice.
- Advocate for Country's continued and/or improved health; and ultimately, fulfil their cultural responsibilities.

Case Study 8:

Healthy Waterways improving water quality in the Lake Tuggeranong catchment

Lake Tuggeranong has a history of water quality issues, with frequent lake closures due to high concentrations of blue green algae (cyanobacteria).

As part of the ACT Government's efforts to combat this problem through the Healthy Waterways program, the University of Canberra is contracted to research the sources of nutrients in the catchment as this is one of the main drivers of the algal blooms.

One of the potential point sources for pollution was the elevated nutrient concentrations below areas with large playing fields — particularly in the suburb of Kambah. While a review into the application of fertiliser on playing fields was recommended, it was also advised to design stormwater systems to capture the input of nutrients downstream of playing fields.

In response, the Healthy Waterways program organised funds in 2021 and constructed bioretention swales downstream of three playing fields in Kambah. Bioretention swales are a type of 'water sensitive urban design' (WSUD) that capture, treat and infiltrate stormwater runoff. Swales are shallow, vegetated, landscaped depressions with sloped sides. The plants in the swales draw nutrients such as nitrogen and phosphorus out of the stormwater as well as slowing the water down, allowing suspended solids to settle and for water to infiltrate back into the landscape.

Approximately 20 hectares of playing field catchment will be treated by the bio retention swales at Kambah. If they are properly maintained, they will effectively treat stormwater for the next 20 years. The swales are also 'pilots' regarding construction standards in the ACT, and working on their design and approval means that it will be easier for the ACT Government and developers to build bioretention swales across the ACT to treat stormwater runoff. This will ultimately improve water quality in our urban lakes.





Bio retention swales at Kambah Photo credit: ACT Healthy Waterways, OoW

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.

While not identified as a target area for the Coordination Group in 2022-23, members continue to work to support healthy ecological systems across the ACT and surrounding region.

In 2022-23, the Coordination Group presented a submission to ACT Natural Resources Management on the Draft Plan: Caring for Dhawura Ngunnawal – A Natural Resource Plan for the ACT 2022-2042. The submission encourages the interaction of actions between the NRM Advisory Committee and the Coordination Group. See **Appendix B** on page 43 for the submission.

Landholder Kevin Reid speaking at the Naas Valley Rivers of Carbon at the ACT&RCMCG field trip. Image source: Andy Lowes, ARRC.



5. 2023-24 Priorities

In 2023-24, the Coordination Group will further progress actions in the Catchment Strategy by focusing on the following priorities.

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

While the Coordination Group has functioned effectively, a review of its functions and governance was undertaken in 2022-23 to identify improvement opportunities. Changes were made through legislative amendments to the Water Resources Act 2007 (the Act) (effective 8 July 2023), which clarified the administrative responsibilities of the OoW relative to those of the FPA and clarified the role of the Coordination Group.

Specific to the Coordination Group, the Act amended the following:

- a. Functions: The Act amendments augments the function of the Coordination Group to advise the Minister and the EPSDD Director-General on matters relating to water catchment management. The Act also allows the Minister to direct the Coordination Group to provide advice about a stated water catchment management matter.
- **b. Membership**: The amendments removed specificity around Coordination Group membership 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 water catchment management agenda.

The Coordination Group will implement the governance changes, which includes developing the Terms of Reference to reflect changes to the function and membership. It will seek a community representative, a water expert and work with the

Dhawura Ngunnawal Caring for Country Committee for Traditional Custodian representative. These nominations will be submitted to the Minister for consideration.

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

The Coordination Group will review the interjurisdictional investment and resourcing framework, which was first agreed in 2019 for four years and ended in June 2023. The review will inform resourcing opportunities for the Coordination Group, provide guidance on member voluntary contributions, and develop an investment plan to deliver improved catchment and river management.

Established in 2021-22, the Budget Sub-group will advise the Coordination Group in developing the framework.

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

The Coordination Group will work with the EPSDD to support the Water Vulnerability Assessments program. Depending on the outcome of Action 2, the Coordination Group will explore co-investing in the projects to advance regional water security planning and programs.

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

To support the evolving water catchment management agenda, the Coordination Group will review the Catchment Strategy, providing the basis for developing an Annual Statement of Priorities. The review will align with the water planning policies and regional planning undertaken by the NSW and ACT Governments.

The Coordination Group will continue working with the EPSDD to support its refresh of the ACT Water Strategy. This strategy is being refreshed to review the ACT's strategic framework for water security, better respond to cultural considerations, contemporary information, national priorities, local issues and support capacity building across the water sector.

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

The Coordination Group continues to financially support the UMCN to facilitate knowledge sharing with community groups, government bodies, researchers, and landholders across jurisdictional boundaries on catchment and river matters through their membership. The UMCN and other community catchment groups need to be adequately funded to deliver on-ground activities. The Coordination Group will continue to advocate for support on behalf of these groups and identify potential funding sources that support the achievement of catchment management outcomes.

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 appropriate action plans in the revised Catchment Strategy. However, the action plans will need to be supported with funding commitments through the ACT Government and other bodies, including the Commonwealth Government.

This action also progresses through activities mentioned under Action 4 and Action 7.

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 has identified the operation of the Tantangara Reservoir under the Snowy Hydro Scheme as a potential threat to the environment, and communities that depend on the upper Murrumbidgee River for critical water needs. This is evident from the declining health of the river and the subsequent ecological habitat loss, reduction in the abundance and diversity of fish species and impacts on the local community's critical water supplies. The implementation of Snowy 2.0 may further exacerbate the impact on the fish species due to the risks of virus invading the upper Murrumbidgee River because of the creation of the new water path where water will be diverted from the Tantangara Reservoir into Talbingo Reservoir and then pumped back to the Tantangara Reservoir.

The Coordination Group will continue its 2022-23 efforts of informing decision-makers and the community of the condition of the upper Murrumbidgee River. In 2023-24, the Coordination Group will advocate for governance and management changes to address matters. This will occur through engagements with key decisionmakers and stakeholders, and giving presentations on the matter in different fora.

Action 14: Ensure Indigenous and other values are recognised.

The Coordination Group will work with the Dhawura Ngunnawal Caring for Country Committee to seek a Traditional Custodian member for the refreshed Coordination Group. Their nominations will be submitted to the Minister for consideration.

The Coordination Group will work with the EPSDD to support the AWA project by providing advisory support on the strategic site selections for the AWAs and, if possible, extending co-funding opportunities to fund AWA activities. The AWAs are facilitated by the Ngunnawal Traditional Custodians to collect information on cultural values to inform water policy and planning.

Appendix A

Upper Murrumbidgee Catchment Network Annual Report 2022–2023



2022 -23 Annual Report Contribution for ACTRCMCG

The Upper Murrumbidgee Catchment Network (UMCN) has continued to position itself as a leading natural resource management network helping to build cross-border, and cross-discipline, networking and information sharing opportunities throughout the upper Murrumbidgee Catchment region. The Network remains closely aligned with, and supported by, the ACT and Region Catchment Management Coordination Group (ACT&RCMCG) who also provide core funding for UMCN.

UMCN Activities

UMCN's activities for 2022-23 have focused on its ongoing quarterly General Meetings for networking and knowledge exchange. Typically, these include

member's activity updates and a more focused presentation on a priority catchment management issue such as erosion control, flood response, sustainable agriculture, climate change and vegetation, invasive plant management, natural resource management planning, bushfire recovery and storm water management.

Working Together for the River Forum

On Wednesday 16 November, building on UMCN's Water Quality and Security Forum, UMCN hosted a larger stakeholder forum titled Working Together for the Upper Murrumbidgee River. This event brought together stakeholders across the Upper Murrumbidgee Catchment to discuss threats and





UMCN Working together for the River Forum (left) at the Royal Hotel in Queanbeyan and (right) UMCN Chair Andy Lowes with Federal Member for Eden Monaro, Kristy McBain, who dropped by to speak at the Forum.

opportunities to recover the river. The Forum included presentations from regional NRM groups, ACT&R CMCG, property owners, research/academia, NSW Government water agencies, nongovernment agencies, and Snowy Hydro Ltd. These presentations were followed by an expert panel discussion and a UMCN Year of Water Networking Dinner.

The Forum was a key highlight for the year and helped to build a general understanding of the threats facing the upper Murrumbidgee Catchment, while also highlighting opportunities and pathways to improve its health; including through improved flows, erosion control and weed management. The Forum was well attended by members and partners, and all proceedings are available via the Working Together for the River section of the UMCN website.

Engagement with ACT&RCMCG and ACT government

UMCN continues to sit on ACT&RCMCG and report back community views on matters related to Natural Resource Management in the region. In addition to this, UMCN has taken opportunities to raise awareness around the Upper Murrumbidgee River, including with the ACT government agencies and the Minister for Water in November 2022, and with the Snowy Advisory Committee in February 2023. ACT&RCMCG and UMCN Chairs also co-presented at the Australian Water Association's ACT Water Matters conference in June 2023 to raise awareness on issues impacting the Upper Murrumbidgee River and opportunities for improvement. UMCN members participated in the ACT Water Security Vulnerability Assessment Stakeholder Workshop in October 2022 and have continued to engage with subsequent technical working groups, and we are an active participant in the Refresh of the ACT Water Strategy.

General Meetings

General Meetings are a critical park of UMCN's role in strengthening the network, sharing information



UMCN, ACT&RCMCG, Ngunnawal Elder, Australian River Restoration Centre, Upper Murrumbidgee Demonstration Reach Coordinator, ACT and NSW Government representatives, Icon Water, Snowy Hydro Ltd and landholders engaging with the Minister for Water at Tharwa.



UMCN, ACT&RCMCG, Ngunnawal Elder, Australian River Restoration Centre, Upper Murrumbidgee Demonstration Reach Coordinator, ACT Government representatives, Icon Water, Snowy Hydro Ltd and landholders speaking with the Snowy Advisory Committee near Bredbo.

about activities across the region, and highlighting key issues or new initiatives. For example, at our General Meeting in August 2022, Andy Lowes from the Australian River Restoration Centre (now also the UMCN Chair) briefed us on the ARRC's **The Forgotten River** campaign. This initiative is seeking better environmental, social and Cultural outcomes for the Upper Murrumbidgee River via improved flows. Our final General Meeting for the 2022 calendar Year (which included the Annual General Meeting) saw the appointment of our new **Executive Committee**, including a new Chair, and was an opportunity to farewell thank the UMCN's previous Executive Office and welcome a new Executive Officer to the team.

Additional General Meetings were held on Wednesday 5 April 2023, and Wednesday 14 June 2023. The first of these was held online only via

Zoom, with a focus on updating UMCN members and supporters on recent Network activities, including a briefing about the Executive Committee Strategy meeting in February. For the 14 June General Meeting, we were joined in-person by Icon Water's Ben Bryant who presented on the idea of using nutrient offsets in the Canberra region to drive investment in activities to reduce erosion and improve water quality. Dr Su Wild-River from the Environmental Protection Authority (EPA) then presented about the EPA's legislative roles within the ACT with regards to pollution and water quality. These presentations were both greatly appreciated by the committee and will be available on the UMCN website in the first guarter of the 2023-24 financial year.

Strategy

With several new members joining the Executive Committee, the committee met in-person on 22 February 2023 to hold a strategic planning session for the coming year. We reviewed the **UMCN** strategic plan for 2021-2026, including having a more strategic focus of facilitating communication and knowledge exchange between our member groups and the ACT&RCCG. Our Strategy sets out UMCN Aims and Themes and aligns with the objectives of the ACT&RCCG Catchment Strategy 2016–2046. Additional priorities identified for the Executive Committee included:

- Building on the momentum from UMCN's 2022 Year of Water to advocate for activities which improve water quality and security in the region;
- Understand point source pollution from ongoing large-scale development in the region, including strengthening the network with agencies such and ACT and NSW EPA;
- Effective weed management, including leveraging off previous work and managing emerging weed
- Increasing our advocacy on key catchment threats and issues:
- Strengthening our network with representatives from regional councils and landholders;

• Exploring opportunities to strengthen our links to the education sector, to educate and raise awareness about the values of our regional waterways and how to care for them.

Reporting and submissions

The UMCN continues to make submissions to relevant government consultation processes. Although the actual submission dates sit just outside the 2022-23 financial year, recent UMCN submissions include: the NSW Regional Water Strategy (June 2022, and subsequently included as an attachment in ACT&RCMCG submission on the draft South East and Tablelands Regional Plan in September 2022); the Federal Department for the Environment's water purchasing consultation (2 July 2023); and the Productivity Commission's review of the Murray Darling Basin Plan (4 August 2023).

UMCN also provided details of its recent activities in a contribution to the ACT Water Strategy 2023 Report Card The Report Card was published by the ACT Government in early July 2023.

Outlook

For 2023-24 UMCN will continue to work collaboratively with our member organisations, and key stakeholders to improve catchment and water management outcomes for the Upper Murrumbidgee catchment. Key planned activities over the next 12 months include:

- Ongoing coordination of cross-jurisdictional water management and related issues;
- Working towards securing environmental water releases from upper Murrumbidgee storages;
- Engaging a consultant to develop an online map to illustrate existing upper Murrumbidgee governance arrangements across the spectrum of catchment management issues.
- Development of a UMCN Stakeholder Communications and Engagement Plan, including a more active and targeted social media and communications program.

Membership and reach

UMCN's formal membership base, and our email list of interested parties and supporters, have continued to grow. Our members currently include 13 Community Groups/NGOs, four Government Organisations, 10 Individuals, and three Corporations. The Network's email list now includes more than 200 supporters. Complementing this email list, we have continued to expand our reach, accessibility, and influence through engagement strategies including:

- Posting video and/or audio recordings of key presentations and events to our website and YouTube Channel:
- Updating the UMCN Website;
- Continuing to use online meeting platforms such as Zoom for efficiency, convenience, health and safety, and member accessibility.
- The creation of promotional videos such as "The UMCN Story".

We would like to take this opportunity to thank all our members, volunteers, and our supporters, including the ACT and Region Catchment Management Coordination Group, for their participation and support throughout 2022 and into 2023.

Appendix B

Coordination Group Submission to ACT Natural Resources Management on the Draft Plan: Caring for Dhawura Ngunnawal – A natural resource plan for the ACT 2022-2042

The Coordination Group strongly supports and respects the Ngunnawal people and their country. Noting that Caring for Dhawura Ngunnawal are keywords in the title of the Draft Plan, it is appropriate that the Acknowledgement of County is in Ngunnawal language and that elsewhere in the report, there is a section on cultural landscapes, and reference is made to traditional practices. However, consideration could be given to using Ngunnawal language more extensively throughout the report — especially for key headings and terms — and also inviting Ngunnawal Custodians to provide a general overall comment for inclusion in the Draft Report if this has not already occurred.

Vision

The Vision statement is lengthy, seemingly actually to comprise several visions with overlapping meanings, and it gives a strong emphasis to Canberra. It is recommended that more succinct vision be developed, with a focus on the ACT as a whole and on Caring for Dhawura Ngunnawal.

Waterways

As a waterway's health is inextricably linked with the condition of its catchments, the Waterways section needs to respect and explain this important relationship and emphasise the value of integrated catchment management. It is suggested that this section be named Waterways and Catchments, and that map of the ACT waterways and catchments be included.

The vision for this section needs to respect that catchment health plays a key role in river health.

For completeness, ground water resources (quantity and quality) also need to be discussed in the section. Given the role of the Coordination Group, it is requested that it, UMCN and the ACT Region Catchment Strategy: 2016-46 be mentioned in this section. There is an opportunity for better integrating themes and actions proposed in the Draft Plan with those in the Catchment Strategy and the other strategies.

Soils

As healthy soils underpin many of the elements in the Draft Plan it is suggested that they be given greater attention in the Draft Report.

Governance

A National Resource Management (NRM) Advisory Group is proposed. There are likely to be unavoidable overlaps between this Group and other advisory bodies eg, the Coordination Group with respect to matters relating to Waterways and Catchments. Given this, it is requested that a system be developed to prevent duplication of effort by the various bodies. For example, matters to do with Waterways and Catchments could be referred to the Coordination Group. Additionally, meeting agendas, minutes and other pertinent documents and outputs could be shared.

As an NRM Regional Collaboration Committee is proposed and other collaboration committees already exist. For example, the UMCN already connects community groups, government bodies, researchers, and landholders across jurisdictional boundaries in clear recognition that environmental matters transcend all boundaries. The UMCN works in an organic manner and does not have decisionmaking powers as its role is to share/collaborate/ educate on a range of NRM matters. It is funded by the Coordination Group and is functioning very well and has strong support. I am available to discuss with you, along with the UMCN Chair, the merits or otherwise of the UMCN supporting both our entities. If a separate NRM Collaboration Committee is established, it is requested that system be put in place to prevent duplication of effort between this committee and others.

Implementation

It would be instructive for all proposed actions in the Draft Plan to have a nominated lead entity, so it is clear who is responsible for implementation. Additionally, it would be useful to have an implementation plan that prioritises proposed actions and shows whether they are funded or not. Implementation needs to be systematically monitored and publicly reported.

The Coordination Group fully supports collaboration and looks forward to our entities mutually supporting each other in our endeavours.

Appendix C

Coordination Group Submission to South Region on the Draft South East and Tablelands Regional Plan 2041

The Coordination Group strongly supports the Draft Plan 2041, providing a strategic framework that fosters:

- Embedding Aboriginal culture and engagement in strategic planning
- Canberra being recognised as both the nation's capital and the key metropolitan centre for the region
- The natural environment being 'at the heart of planning and decision-making'
- Operating as a borderless, connected region with collaborative planning processes
- Innovation to advance sustainable practices
- Growth being tailored to meet community needs and undertaken in a manner that protects the environment and is sustainable.

Such a framework aligns with that in the ACT and Region Catchment Strategy: 2016-46, the visions of which is 'Government, community and industry working together to produce a productive, healthy and resilient and liveable catchment region'. To achieve this vision and that proposed in the Draft Plan 2041, there are four key matters that warrant greater emphasis in the latter:

- Better management of inland waterways
- Integrated catchment management planning
- Sustainable planning
- Ensuing water quality and security both for people and for the environment

These matters are important both in themselves and to the community and researchers who have called for greater action.

Better management of inland waterways

Is it recognised that the Draft Plan 2041 commits to aligning planning with the NSW Regional Water Strategies. This is strongly supported in principle, however, there is an urgent need to reform such strategies and supporting plans that affect the Canberra Region, as evidenced by information previously presented in the comprehensive submissions to NSW Government bodies:

- ACT and Region Catchment Management Coordination Group Submission to the Natural Resource Commission on the Water Sharing Plan for the Murrumbidgee Unregulated River Water Sources 2012.
- Upper Murrumbidgee Catchment Network Submission on the Draft Murrumbidgee Regional Water Strategy.
- Upper Murrumbidgee Demonstration Reach Submission of comment on the Murrumbidgee Regional Water Strategy.

These submissions highlight that the Upper Murrumbidgee River:

- Cease to flow for the first time in recorded history during the summer of 2019-20, leading to widespread water problems that the environment and human needs.
- Releases from Tantangara Dam are not effective during dry periods, indicating a major sustainability issue for the region, both for river health and water security.
- Has been substantially modified, yet remains relatively untouched by the water reforms in NSW and the broader Murray-Darlin Basin.

• Is unhealthy, for which a significant contributing factor is related to the volume and timing of allocations under the Snowy Water Licence for the Snowy Montane Releases. These need to be examined, and a review was undertaken of the Snowy Water Inquiry Outcomes Implementation Deed (SWIOID) to identify what sustainable releases.

From these submissions, it is clear that:

- Communities in the upper Murrumbidgee River region are increasingly concerned about the impacts of water and land management on environmental, cultural and social values (human health)
- Flow regimes in the Murrumbidgee River within the ACT and surrounding region – affected by water resource management within NSW and the operation of Tantangara Dam under the NSW Snowy licence — are negatively impacting water quality and aquatic ecosystem health, particularly for native fish populations, and
- Improving the ecological, cultural, social and water supply outcomes in the upper Murrumbidgee catchment, the ACT and the surrounding region required enhanced water releases from Tantangara Dam water management rules within NSW that protect environmental and cultural flows, water take compliance, and complementary NRM activities.

In light of this information, the Draft Plan 2041's claim that 'Protecting the diverse and natural environment' is 'something that is working well' cannot be supported. It is therefore recommended that 'Protecting the diverse and natural environment' belongs under the heading of 'Where is greater focus needed.

Additionally, given the Draft Plan 2041's espousal of 'innovation in sustainable practices', it is recommended that priority be given to identifying what these practices are in relation to balancing the generation of renewable hydro energy with having a healthy river system that supports ecological, cultural, social and water supply outcomes.

Integrated catchment planning

Where currently the Draft Plan 2041 presents the region's subregions based on administrative boundaries, a more appropriate option for achieving greater collaboration and integration of development and environmental considerations in planning could be to define subregions based on water catchments. Identification of key catchments could then assist in fostering cross-border subregional integrated catchment planning. Consideration could be given to having a commitment like Action 10 of the ACT and Region Catchment Strategy: 2016-46 to "Provide an integrated catchment management planning approach for growth and settlement patterns in the ACT and Region".

Such an integrated catchment planning approach could also provide a guiding framework for integrated actions to enhance ecological systems and protect biodiversity, habitats, and the connections between them, as proposed in Objective 6 of the Draft Plan 2041.

Sustainable planning

The Draft Plan 2041 espouses that the natural environment is to be 'at the heart of planning and decision making' and calls for sustainable planning. This is reflected in commitments such as Objective 17: Plan for a supply of housing in appropriate locations. Appropriate locations would be those that do not adversely affect the environment, or cultural and heritage sites. However, Collaborative Action 17.2 contradicts Objective 17 and calls for the development of '..a set of master planning principles that provide examples on how to address planning barriers to rezoning and developing residential land, in the context of the high environment, cultural and heritage significance, important agriculture land and areas affected by natural hazards.'

Collaborative Action 17.2 needs to be reworded to make it clear that the development of 'high environment, cultural and heritage significance, important agriculture land and areas affected by 'Work with councils and the Canberra Region Joint Organisation to develop a set of mater planning

principles that provide examples of how to identify land as suitable and appropriate for residential development while protecting areas of high environmental, cultural and heritage significance, important agriculture land and areas affected by natural hazards'.

Water quality and security for people and the environment

The proposed development and the implementation of a Capital subregion water strategy are welcomed. However, while the finalisation of regional water strategies is presented as a supporting initiative, the proposed water strategy appears not to include considerations of water needs for the environment; nor does it outline how this strategy might link with the other regional water strategies.

If the primary focus of the proposed Capital subregional water strategy is to meet human water needs, it would be prudent to reflect this in the title, given the call by experts and community members in our region not only to have an all-encompassing water strategy but also a define water security broadly to include the needs of the environment. UMCN held an online Water Quality and Security forum earlier this year to interrogate some of these matters.

The Coordination Group would welcome being consulted, to apply the diverse skills and perspectives of its members to inform the direction, development and implementation of the proposed Capital subregion water strategy. Additionally, Icon Water can provide technical feasibility advice on matters such as infrastructure servicing options and assessment of impacts. It should be noted that Icon Water is not a decision-maker on cross-border policy issues but is a licenced Utility only within the ACT, and that under current policy and regulatory frameworks cross-border supply options are limited. However, in recent years around 8% of water supplies by Icon Water has been for Queanbeyan City and Googong Township through a Bulk Water Supply Agreement with Queanbeyan-Palerang Regional Council.

Icon Water's water security planning for the ACT and other areas of the region already factors in a component for growth in regional supply, along with other factors such as climate change and local population growth. However, if multiple regional water supply arrangements were proposed, Icon Water's existing assumptions would require updating.

Furthermore, community engagement on this important issue can be readily fostered through the Community Representative on the Coordination Group, and our partnership with the UMCN.

Appendix D

Independent Community Representative Report

This year has witnessed strong and growing community effort to protect our catchments and waterways with landcare groups in the ACT now growing to over 100. Landcare ACT, working with the three Catchment Groups (Ginninderra, Southern ACT and Molonglo) has continued to represent and support thousands of volunteers with funding support from the ACT Government for the Catchment Groups and via the National Landcare Network, the Australian Government funds Landcare ACT.

The Commonwealth's new Urban Rivers and Catchment Program recognises the importance of volunteers in managing rivers and catchments. Under the first tranche of funding through the Urban Rivers and Catchment Program, Landcare ACT is to receive \$2.7 million over 3.5 years. Landcare ACT, in partnership with the Catchment Groups, will mobilise and support the broad Catchment community to improve the health of waterways and catchments with a focus on riparian habitat restoration and water quality improvement.

Landcare ACT's Wellbeing through Nature program was further progressed in 2022-23. Building on international research about the benefits of nature connection for improving our mental health and



Landcare activity in Moncrieff Photo credit: Ginninderra Catchment Group



Wellbeing activity - Tree measuring Photo credit: Landcare ACT

wellbeing, this program has offered supported nature-based activities to over 500 people, most of whom normally do not participate in Landcare activities. An interim evaluation conducted by researchers at the University of Canberra found that the program is achieving its goals:

- 94% of respondents to its survey felt the program helped them to connect to the local environment
- 75% agreed that the program helped them to feel more connected to others
- 91% felt the program was good for their mental health: and
- 94% thought the program was good for their overall wellbeing.

Upper Murrumbidgee Catchment and River health and the importance of water security for downstream communities continued to be of interest to community members as noted in the UMCN Annual Report in **Appendix A** on page 39. It is of concern that this river's health may further decline given the pressures on it, especially our changing climate.

Appendix E

2022-23 Financial Report

Summary

Income - members contributions (2022-23)	\$215,700
Expenditure (2022-23)	\$154,210
Balance (2022-23)	\$61,490
Balance carried over from 2019-2022	\$189,107
Total (Available funds)	\$250,598

Income - Invoiced contribution	2022-23	Remarks
Total	\$215,700	
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	
Environment, Planning and Sustainable Development Directorate	\$95,700	

Expenditure - By project	2022-23	Remarks		
Total	\$154,210			
1. Upper Murrumbidgee Catchment Network	\$141,700	Contribution to UMCN includes		
2. Annual Report	\$11,759	\$85,800 which is the funding for		
3. Admin/meeting	\$750.50	2023-24, expended in 2022-23. —		
Balance (2022-23)	\$61,491			
Balance carried over from 2019-2022	\$189,107			
Total (Available funds)	\$250,598			

