#### **ACT and Region Catchment Strategy**

## In Brief



















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#### At a glance

#### Challenges

The major challenges over the next 30 years are the multi-jurisdictional nature of the catchment, a growing population and a changing climate.

#### The strategy

The ACT and Region Catchment Strategy aims to improve coordination, cooperation and collaboration in addressing the catchment management challenges across the multijurisdictional catchment.

It presents 19 actions in 5 key themes: governance, policies and planning; communities; regional development; water; and land and biodiversity.

#### The goals

The governance theme establishes a framework for decision making taking into account the values of stakeholders, the evidence base, and the benefits of cross-jurisdictional collaboration, for the collective, long-term good of the catchment and its residents.

The community theme values and remains strongly connected to the catchment, and provides the capacity to adapt to environmental, economic and policy changes.

The regional development theme seeks to support human settlement and regional growth across the ACT and Region by providing sound catchment management planning principles that are resilient and sustainable.

The water theme ensures that the resource is managed in a total water cycle management regime.

The land and biodiversity theme provides the ACT and Region with a healthy ecological system that is resilient to stress and adaptive to change.

#### Development

The Catchment Strategy has been developed by the ACT and Region Catchment Management Coordination Group with strong involvement from catchment stakeholders.

#### The group

The Group was established to address the challenges in catchment management across jurisdictions, and includes executive representatives from the Australian Government, ACT Government, NSW Government, local councils, Icon Water and the community.

#### **Timeframe**

The Catchment Strategy sets the strategic direction for the next 30 years.

#### Area

The Catchment Strategy covers the area within the Upper Murrumbidgee River catchment, upstream of Burrinjuck Dam and extending to Lake Eucumbene in the south.

#### **Implementation**

The ACT and Region Catchment Strategy: Catchment Action Implementation Plan 2016–21 describes the major features of the strategy's implementation. The initial focus is on establishing governance frameworks, aligning policy, and establishing collaborative processes and networks. More detailed 5-year implementation plans will be developed following the release of the strategy.

#### Review

Catchment targets will be developed, and implementation plans will be continually monitored and reviewed to measure progress and identify future priorities and milestones. The Catchment Strategy will be reviewed at approximately 5-year intervals.

#### **About the ACT and Region**

#### The catchment

The Catchment Strategy covers approximately 16,000 km2 of the Australian Capital Territory and the New South Wales local government areas of Queanbeyan—Palerang Regional Council, Snowy—Monaro Regional Council and Yass Valley.

#### Land

The main land uses in the region are nature conservation in national parks and reserves, and grazing. There are 14 urban settlements, of which Canberra is the largest.

#### People

There are almost 435,000 people living in the region, including 85,000 living outside the ACT.

#### History

Aboriginal people occupied the region from at least 21,000 years ago, and the Canberra region was a centre for ceremony and social interaction. Europeans established grazing properties in the 1820s, and gold mining was prevalent across the region in the 1870s. Following Federation in 1901, Canberra was chosen as the site of the Australian capital.

#### **Economy**

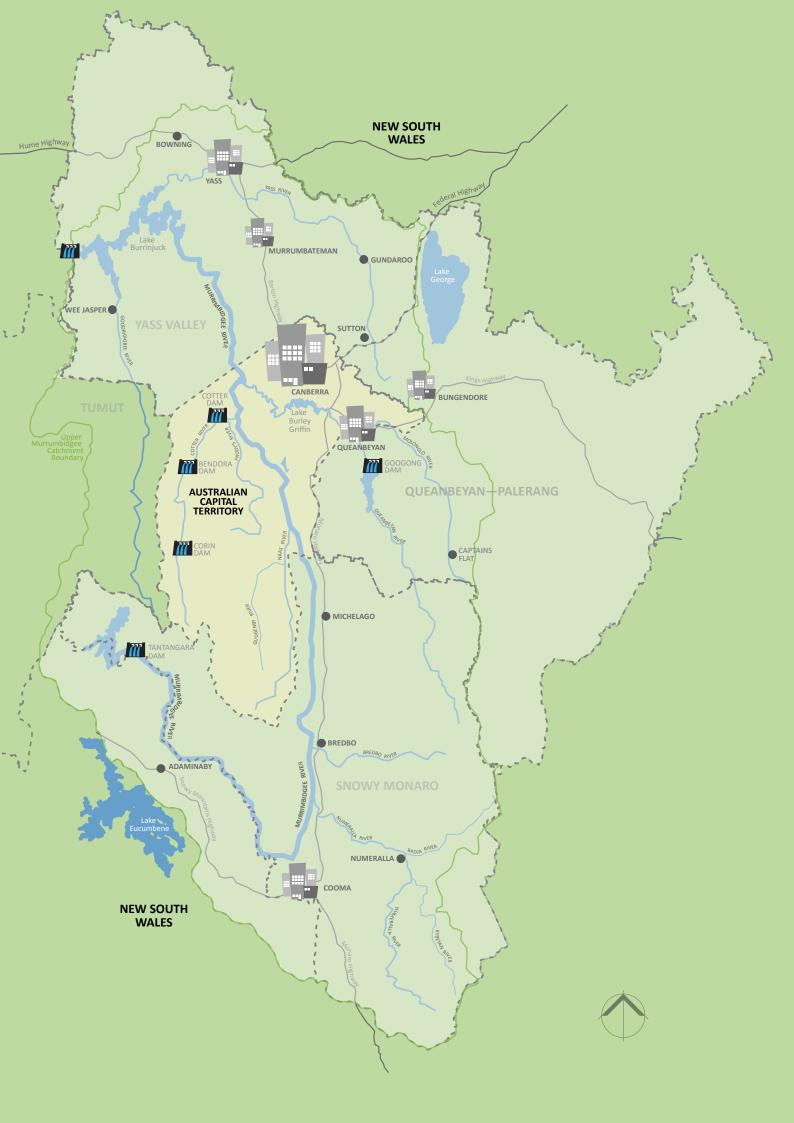
Canberra has a strong public service and commercial sectors, with the majority of employment in public administration, health, retail, education and training. The surrounding NSW region has a strong agricultural industry and many niche producers.

#### Water

The Murrumbidgee River runs through the region, and tributaries include the Molonglo, Numeralla, Bredbo, Gudgenby, Cotter, Goodradigbee and Yass rivers. There are also groundwater aquifers that store and discharge water into water bodies throughout the ACT and Region. There are numerous constructed lakes and wetlands in urban areas, as well as natural wetlands, including wetlands in conservation areas. Water for human use is supplied by the Captains Flat, Cotter, Bendora, Corin, Googong and Yass dams. The region has an environmental flows management regime to protect aquatic communities.

#### **Environment**

The region includes alpine uplands, tablelands, ranges and lowland slopes. Following European settlement, much native vegetation was modified through clearing of trees and shrubs, ploughing for crops or introduced animal grazing; 24% of remaining native vegetation is in reserves and national parks. The region is rich in biodiversity, and is home to a number of nationally threatened species and ecosystems.



#### **Development of the strategy**

#### The ACT and Region Catchment Management Coordination Group

The ACT and Region catchment is unique in its multi-jurisdictional influences of federal, state, territory and local governments. To address the challenges in catchment management across jurisdictions, an interjurisdictional coordination body called the ACT and Region Catchment Management Coordination Group was established as a statutory body under the ACT Water Resources Act 2007.

In October 2014, the ACT Government invited members of the Australian Government; the ACT Government; the NSW Government; the local councils of Queanbeyan—Palerang Regional Council, Snowy Monaro Regional Council and Yass Valley; Icon Water; and the community to form the ACT and Region Catchment Management Coordination Group. An Independent Chair, Emeritus Professor Ian Falconer, was also appointed.

The Coordination Group enables government, community and industry to collaborate to ensure that our environment remains liveable and resilient while our region continues to develop economically.

The Coordination Group advises the ACT Minister for the Environment on catchment management, particularly:

- regional collaboration and coordination
- alignment of planning, policy and regulatory programs
- opportunities to align investment in catchment management.

#### Our mission

The Coordination Group is committed to providing the highest level of governance to catchment management within the region.

The Coordination Group will work for the longterm benefit of the ACT and Region catchment and all the people who live it. It will:

- 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, recognising it as a connected socioecological system
- promote a whole-of-catchment and governmental approach to improving the catchment's health in the long term, using the best available science and community engagement to support its work.

#### Why we need a catchment strategy

The ACT and Region is facing the major challenges of a growing population and a changing climate in a multi-jurisdictional context.

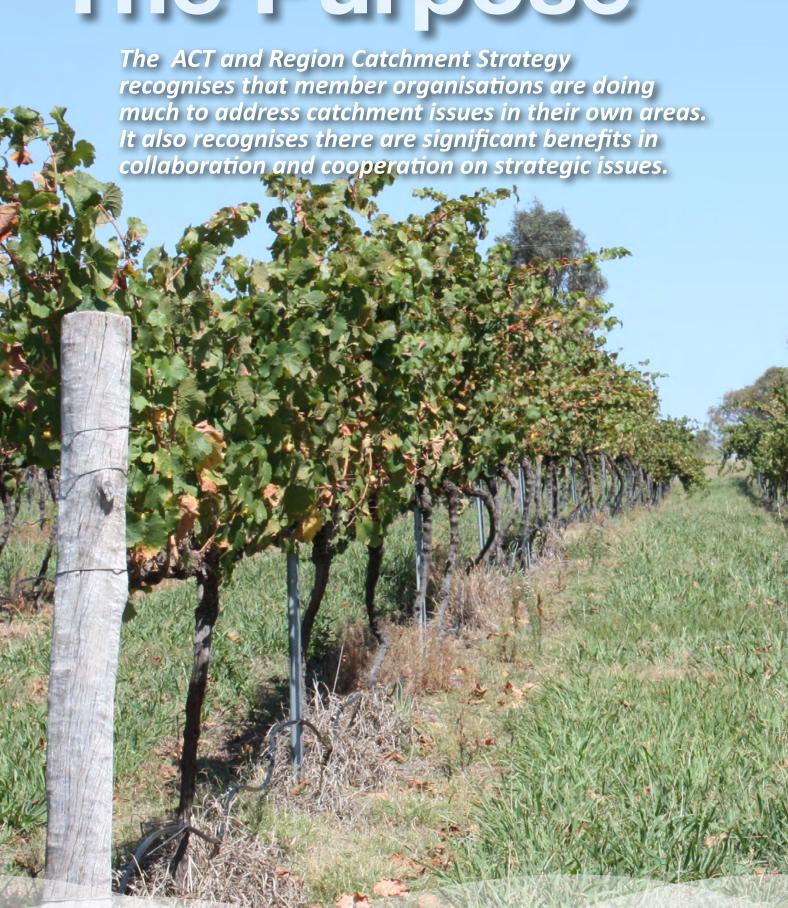
The Coordination Group agreed that an ACT and Region Catchment Strategy would be the vehicle to promote enhanced coordination, cooperation and collaboration in addressing catchment management challenges.

#### How the strategy was developed

The draft Catchment Strategy was developed by the Coordination Group with strong involvement from a wide range of catchment stakeholders. Stakeholder consultation included community workshops and interviews with stakeholders, which informed the development of the strategy.







#### The strategy

#### The strategy:

- provides a vision to all agencies, organisations and individuals involved in catchment management
- offers a mechanism to resolve jurisdictional challenges and capitalise on the opportunities for improved catchment management outcomes
- provides a mechanism to develop joint funding bids, and prioritise investment and effort for the benefit of the region
- reinforces the connections between land and water, rural and urban, and humans and the environment.

#### Challenges

Research, and stakeholder and community consultation indicate that the major factors that will influence the catchment over the next 30 years are:

- the multi-jurisdictional nature of the catchment—there are three levels of government and six jurisdictions, yet ecological and hydrological processes operate regardless of political or administrative boundaries. This makes catchment-wide coordination essential
- a growing population—the ACT and Region is the largest inland urban area in Australia with some of the fastest growing local government areas by percentage in NSW. The regional population is expected to grow by 36% in the next 20 years. This may increase water, land and other resource needs and environmental impacts
- a changing climate—we expect temperatures
  to increase, summer and autumn rainfall to
  increase, spring rainfall to decrease and storms,
  droughts and bushfires to happen more often.
  This may increase water needs and decrease
  water availability and quality.



#### Our response

The Catchment Strategy sets out principles for governance, and proposes 19 actions to address the challenges facing catchment management in the region and to optimise outcomes for its stakeholders.

The actions are presented under five catchment themes:

- governance, policy and planning
- communities
- regional development
- water
- land and biodiversity

Each theme has a goal and actions.

# Governance, policies and planning

#### Why this theme is needed

With numerous jurisdictions in the catchment, legislation is often applied differently, to the possible detriment of the catchment. In addition, confusion of roles and responsibilities of governments, community groups and stakeholder groups may lead to duplication of effort or missed opportunities. Similarly, the large number of legislation, regulations, policies, plans and strategies related to catchment management can cause misalignment in their application and the relationship between these documents.

Under-resourcing of programs such as educational campaigns or compliance enforcement could have negative consequences for catchment management. Poor data management and monitoring of biophysical catchment condition means decisions may not be based on the best available information.

#### **Opportunities**

The governance, policy and planning theme aims to put into place the framework and processes to ensure that all strategies are implemented more efficiently and effectively. The actions of this theme have been developed around improving governance, policy and planning in catchment management, and are aimed at developing collaborative relationships, sharing information and knowledge, and aligning relevant legislation, policies and plans.

#### Goal

Governance decisions take into account 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.

#### **Actions**

#### **Building collaborative relationships**

- Action 1: Build an inter-jurisdictional decision making framework related to catchment policy and planning.
- Action 2: Establish an inter-jurisdictional investment and resourcing framework.
- Information and knowledge sharing
- 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.
- Policy, legislation and plans
- 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.



### Communities

#### Why this theme is needed

The community needs to be able to adapt to changing circumstances, particularly climate change, technological changes and other advances in catchment management.

Increasing population, higher than national average volunteerism rates and an expectation for community involvement in decision making provide an opportunity for greater participation in natural resource management; however, resourcing and capacity constraints need to be addressed.

In addition, recognition and incorporation of Indigenous cultural and land management practices are important for transferring knowledge and increasing cultural awareness.

#### **Opportunities**

The communities theme acknowledges the outstanding contribution that catchment groups and volunteer programs play in protecting our natural resources. The actions of this theme seek to harness a growing volunteer base, motivate people to become active in catchment management, and increase the community's capacity to adapt and make informed management decisions.

#### Goal

The community values and remains strongly connected to the catchment, and has the capacity to quickly adapt to environmental, economic and policy changes.

#### **Actions**

#### **Adaptability**

- Action 7: Strategically support the role and work undertaken by peak stakeholder groups, volunteers and land owners and managers.
- Action 8: Develop an integrated catchment emergency response plan.

#### **Education and promotion**

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



# Regional development

#### Why this theme is needed

The population of the region is projected to increase by 30% to about 600,000 by 2031. This is approximately equivalent to the Gold Coast's current population level.

This will place increased pressure on catchment facilities. Water and other infrastructure is ageing throughout the region. Wastewater and sewage management capacity will continue to be a challenge for a growing region, and reticulated sewage treatment can be a constraint for rural villages across the catchment.

Other changes associated with population growth may affect the catchment. Total domestic waste will increase with an increasing population. Expanding urbanised areas will increase nutrient and sediment loads, particularly via run-off from sealed surfaces such as roads and paving. Changing land use may fragment vegetated landscapes.

#### Opportunities

The regional development theme recognises that the catchment is a growth area and aims to support the prosperity of the region. The actions of the theme focus on developing sound catchment management planning principles to underpin the provision of appropriate catchment-related infrastructure and sustainable patterns of settlements. They also aim to provide the technical expertise to support sustainable growth.

#### Goal

Human settlement and regional development across the ACT and Region are resilient and sustainable.

#### **Actions**

#### **Settlement patterns**

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

#### Infrastructure provision and renewal

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

### Water

#### Why this theme is needed

Water supply security is variable across the region, and this could constrain growth. At the same time, limits to water use under the Murray–Darling Basin Plan (2012), while being a valuable step in maintaining ecosystem function, will provide ongoing challenges in providing drinking water for a growing population.

Climate change and changes to land and water use are likely to affect water availability, as will reduced rainfall and altered rainfall patterns across the region.

Increases in the number of farm dams across the catchment, mainly associated with peri-urban development, reduce the surface water run-off. Dams can reduce groundwater flow, alter the size and timing of peak flows, and cause water losses through evaporation. In urban landscapes, large built-up areas increase run-off and change the natural hydrology of the water cycle.

Population increases and changes to land use also affect water quality. Increased bore water use – for example, in the Murrumbateman area – could increase salinity. Urbanisation generates significantly greater loads of pollutants in stormwater. Increased recreational uses of water bodies can affect water quality, aquatic habitat and ecosystem functions.

#### **Opportunities**

The water theme focuses on the key issues of securing water supply at a regional level, maintaining water quality that is fit for the region's needs and improving ecosystem health. It aims to increase our knowledge about managing groundwater resources. It also aims to increase our understanding of Indigenous water values and uses and incorporate these in water resource planning.

#### Goal

Water is managed in a total water cycle management regime.

#### **Actions**

#### Water use

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

#### Water quality

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

#### Indigenous and cultural waters

 Action 14: Ensure that Indigenous and other values are recognised in water resource planning.

#### Groundwater

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

# Land and biodiversity

#### Why this theme is needed

Increased development can fragment landscapes and increase soil erosion risk. Loss of vegetation cover means soil becomes unstable and prone to erosion, and sediment is washed into nearby waterways. This increases water turbidity, raising water tables and increasing salinity levels, which in turn affect aquatic organisms and ecosystem function. Gully erosion is a major process contributing sediment to the Murrumbidgee River.

Loss of vegetation also has a flow-on effect on soil condition and water quality. Parts of the region are currently affected by poor soil conditions, including areas in the southern section where soil has been categorised as low quality and highly erodible.

A number of contaminated sites have recently been identified throughout the Upper Murrumbidgee catchment, bringing the total number of recorded sites within the ACT to 899, and with a further two sites in Yass and one in Cooma.

Urban expansion leads to negative environmental impacts, threatening intact habitats and ecosystems. A growing population also increases the number of travel routes, resulting in higher biosecurity risks.

Climate change and the resulting increased frequency of extreme events such as fire and drought, high temperatures and changed rainfall patterns negatively affect ecosystem functions and land condition. In addition, species may shift their distribution and invasive species may become more prevalent.

#### **Opportunities**

Stable, well-managed vegetation is key to sustainable management of catchments. The land and biodiversity theme involves an integrated and collaborative approach to deal with the degradation of the environment through physical and climate change. It focuses on improving landscape connectivity and treating soil erosion at priority sites, as well as a coordinated response to biosecurity risks.

#### Goal

The ACT and Region is a healthy ecological system that is resilient to stress and adaptive to change.

#### **Actions**

#### **Biosecurity**

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

#### **Biodiversity**

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

#### Soil health

- Action 18: Mitigate soil erosion at priority sites.
- Action 19: Consider regional approaches to dealing with contaminated land, illegal dumpling of contaminated waste and dumping of subsoil construction waste.



#### **Next steps**

#### Implementing the strategy

The Catchment Strategy and its actions will be implemented through staged implementation plans. This Catchment Strategy is supported by A Catchment Action Implementation Plan 2016–21, which accompanies the strategy. The timing for each action will depend upon agreed priorities, the complexity of the action, and the availability of resources.

The Coordination Group will focus on securing resources for actions that are cost effective in terms of responding to catchment management priorities and achieving the greatest positive impacts.

#### First actions

The main focus is establishing the required governance frameworks and the considerable task of policy alignment. This work sets the foundations for the life of the Catchment Strategy and facilitates the establishment of catchment targets. Other primary focus areas include establishing collaborative processes across the region, and developing community and stakeholder networks.

In addition, the Coordination Group is tackling some regional issues. Building on the successful regional Waterwatch Program, a behaviour change program is being developed to raise awareness about how the catchment works; what affects stormwater and water quality in our waterways, lakes and wetlands; and what residents of the catchment can do to make a difference to catchment health.

#### Monitoring, evaluation and review

Future implementation plans will be monitored and reviewed to measure progress and identify future priorities and milestones, ensuring that the Catchment Strategy remains current and able to respond to the latest challenges and knowledge.

The development of catchment targets will provide a useful mechanism for measuring the effectiveness of the actions against the Catchment Strategy's vision of a healthy, productive, resilient and liveable catchment.

A comprehensive review of the Catchment Strategy will be undertaken at 5-year intervals to ensure that the overarching policy framework is evolving with catchment management in the ACT and Region. In addition, condition assessment of the ACT and Region catchments will continue to be reported through the state of the environment reports.





#### ACT and Region Catchment Management Coordination Group

#### For more information

Visit: environment.act.gov.au

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#### **ACT and Region Catchment Management Coordination Group members**

Professor Ian Falconer: Independent Chair

Dr Fiona Dyer: community representative on the Coordination Group, Chair of the Upper Murrumbidgee Catchment Coordinating Committee

Mr John Vucic: General Manager, Snowy Monaro Regional Council (delegate: Mr Peter Smith)

Mr Peter Bascomb: General Manager, Palerang Council

Mr Peter Tegart: General Manager, Queanbeyan-Palerang Regional Council

Mr David Rowe: General Manager, Yass Valley Council (delegate: Mr Chris Berry)

Mr Derek Larsen: General Manager, South East Local Land Services

Ms Dorte Ekelund: Director-General of the ACT Environment and Planning Directorate

Ms Emma Thomas: Director-General of Transport Canberra and City Services

Ms Kathy Leigh: Head of Service and Director-General of the ACT Chief Minister, Treasury and Economic Development Directorate (delegate: Dr Karl Alderson)

Ms Nicole Feely: Director-General of the ACT Health Directorate (delegate: Dr Paul Kelly)

Mr Dominic Lane: Commissioner, ACT Emergency Services Agency

Mr Malcolm Snow: Chief Executive, National Capital Authority

Mr John Knox: Managing Director, Icon Water