



Australian Capital Territory  
Government

# Think water, act water

Summary

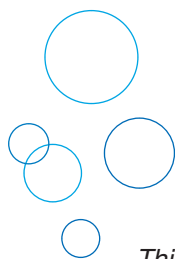


building our city  
building our community  
ACT Government

### Dedication to Gary Croston

*Think water, act water* is dedicated to the memory of Gary Croston, the key architect and driver behind the development of this Strategy. Gary passed away unexpectedly in January 2004.

Gary leaves behind a significant legacy for future generations through his contributions in the areas of forestry, urban parks, conservation, environment protection and water resources management, made over his twenty-eight years of public service.



## Introduction

*Think water, act water* is the ACT's water resources strategy. It is a long-term strategy, setting directions for water resource management until 2050. It also includes an Implementation Plan setting out a range of actions.

Water does not recognise Territory and State boundaries, consequently *Think water, act water* not only seeks to set the direction for future water resource management in the ACT but also considers how our actions in the ACT affect water availability and management across the region and downstream of the ACT.

The direction of the strategy *Think water, act water* comes from the ACT Government's draft policy, *Water ACT: a draft policy for sustainable water resource management*. *Think water, act water* confirms the goal for water resource management identified in *Water ACT*, namely:

*"The ACT Government is committed to the sustainable use and management of ACT water resources, and will implement best practice water resource management strategies."*

## Navigating the strategy

There are three parts to *Think water, act water*:

### Volume 1

*Think water, act water* (this document) being the overall strategy and an implementation plan (see Appendix A).

### Volume 2

*Explanatory document*, which provides more detailed information and explanation.

### Volume 3

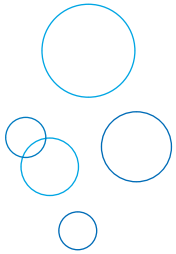
*The state of the ACT's water resources and catchments*, which describes the water sub-catchments in which the ACT has an interest, the flows, allocations and provision for future allocation for sub-catchments.

## Copies of the strategy

Copies of the documents will be available from the Environment Information Centre, Macarthur House, 12 Wattle St, Lyneham. Copies are also available from the web site:

<http://www.thinkwater.act.gov.au>

Enquiries about this publication should be directed to Environment ACT, Telephone (02) 6207 9777.



## Strategy summary

*Think water, act water* will provide long-term guidance for the management of ACT water resources. *Think water, act water* should be seen as a document that is able to incorporate the latest thinking and new ideas. The major objectives of the Strategy and the Government's commitments to meeting them are outlined below.

### Increase the efficiency of water usage

Ensuring that the ACT has an adequate, secure water supply is a major objective of the Strategy. How water resources are managed into the future is dependent upon a range of issues such as population growth, the legacy of the 2003 bushfires in the Cotter catchment, climate change, and how the 'urban water cycle' is managed.

Water for future population growth can be obtained by increasing the water we obtain from our water supply reservoirs, or by reducing per capita mains water use, or a combination of both. Analysis undertaken for Canberra indicates that the most effective option, taking account of costs to the entire ACT community, is to implement water efficiency measures first. Accordingly the Government has set water targets of:

- a reduction in per capita consumption of mains water by 12 per cent by 2013 and 25 per cent reduction by 2023, through:
  - water efficiency measures
  - sustainable water recycling
  - use of stormwater and rainwater
- an increase in the use of reclaimed water from 5 per cent to 20 per cent by 2013.

Water efficiency will be achieved by:

- providing a rebate for AAA showerheads
- subsidising household water tune-ups
- subsidising household garden water tune-ups
- subsidising provision and fitting of a AAA 6/3 litre dual flush toilet in place of a single flush toilet
- providing a rainwater tank rebate scheme
- information and awareness programs that provide advice to householders and the business and government sectors
- supporting a national scheme for compulsory water efficiency labelling of appliances, and promoting agreement across Australian jurisdictions so that only water efficient appliances, such as AAA showerheads (by 2007) and AAAA washing machines (by 2010), are available for sale in the ACT and the rest of Australia
- a range of regulations to support more water efficient use of water in the home and garden.

Initiatives are also needed in the commercial and industrial sectors, and from government buildings, public land and public housing. A number of initiatives in areas such as irrigation of public land and water efficiency in schools and public housing are being implemented. In consultation with businesses in the ACT, a detailed water efficiency program across the commercial, industrial and public sectors will be developed and initiated during 2004–2005.

Water reuse is another way to help meet our water consumption reduction target. Within the ACT we currently use high quality drinking water for irrigation and other purposes for which we could potentially use some of the 35 GL of treated water discharged every year into the Molonglo River. We currently reuse only about 1.8 GL. The Government has set a target of increasing the use of reclaimed water to 20 per cent by 2013. This target will be challenging to meet and further research is needed to determine if and how this could be sustainably achieved. Reuse measures that will be pursued in the short term are:

- develop guidelines for use of domestic greywater and include information in community awareness programs
- reticulate reclaimed water from the Fyshwick treatment plant to irrigate ovals in North Canberra
- investigate the opportunities for sustainable reuse in greenfield and re-development areas
- ensure that any building the Government builds or procures for its use will incorporate features to maximise efficiency of water use and reduce the demand on mains water through alternative supplies, such as stormwater, rainwater and reclaimed water.

### **Provide a long-term, reliable source of water for the ACT and region**

The ACT Government is committed to applying thorough scientific and systematic analysis of the state and future of the ACT's water supplies to ensure they are managed in a sustainable, equitable and participative manner.

A range of water supply options for the future will continue to be considered in case water use efficiency measures are not able to save enough water to avoid the need to construct further water supply infrastructure. This planning process is being developed in a strategic manner to ensure there is no risk to the long-term security of water supplies for the ACT.

ACTEW has undertaken an initial assessment into possible infrastructure options to augment supply. Three major options have been identified for detailed evaluation. They are:

- building a new dam near Mount Tennent, south of Tharwa in the ACT
- enlarging the existing Cotter Dam
- transferring water from Tantangara Dam in New South Wales to the ACT's Cotter catchment.

The ACT Government will work in partnership with ACTEW and the community to further investigate the full range of issues, including consideration of hydrological, economic, environmental and social factors. It is envisaged that a detailed cost-benefit, environmental and social analysis will be completed by March 2005.

It is important to undertake this type of planning for the future because there are many uncertainties, including predictions about population growth, possible significant climate changes and likely reduction in water yield from our fire affected Cotter catchments.

In the wider region, the ACT has agreed to participate in the cap on water diversions as a commitment to its role in looking after the Murray-Darling Basin. The ACT is currently in the process of developing an appropriate cap level in consultation with other members of the Murray-Darling Basin Commission.

The Government will aim to complete a Memorandum of Understanding with the New South Wales Government and the Commonwealth Government that will include provision for a water cap by the end of 2005.

## Promote development and implementation of an integrated regional approach to ACT/New South Wales cross-border water supply and management

Development of a cross-border water supply strategy based on sustainability principles, and that ensures water supply security for the ACT is seen as a priority. Work has already begun on this. It will be consistent with, and supportive of the approaches promoted by *Think water, act water* and consistent with The Canberra Plan (including its component plans).

## Protect the water quality in ACT rivers, lakes and aquifers, to maintain and enhance environmental, amenity, recreational and designated use values and to protect the health of people in the ACT and down river

The ACT is Australia's largest inland population centre and with our position in the Murray-Darling Basin, the impact of our activities on water quality needs to be carefully considered. The Government acknowledges this responsibility both in the ACT and to waters downstream and will meet this responsibility through:

- continuing environmental and health water quality protection programs to meet the aim of the same or better quality for water leaving the ACT as that entering
- reviewing the Environmental Flow Guidelines in 2004 using new scientific knowledge gained since 1999
- reviewing water resource monitoring to identify clear objectives for monitoring programs, and facilitate synergies between programs
- requiring that management of riparian zones in the ACT be consistent with the Riparian Zone Management Plan in Volume 2 of *Think water, act water*
- using adaptive management to ensure best practice management of the ACT's water resources.

## Facilitate the incorporation of water sensitive urban design principles into urban, commercial and industrial development

When we build our cities and towns, we significantly modify the natural water cycle. We import water from our water supply catchments, and we discharge highly treated water via the sewerage system back into our rivers. Urban areas also cause a dramatic increase in stormwater run-off and associated pollutants, causing serious degradation of our natural river systems. There is now much attention on how we might better manage all these components of the water cycle in our urban environments. Such an approach is known as Water Sensitive Urban Design (WSUD).

WSUD approaches seek to facilitate sustainable urban development by reducing use of mains water, reducing treated effluent discharge and stormwater run-off and reducing water quality impacts on urban waterways, particularly the urban lakes. In addition to these water-focused outcomes, WSUD aims to protect or enhance other social, amenity and design values traditionally accommodated in the planning process.

- In consultation with industry, the Government will require that best practice, cost effective WSUD measures be used in the construction of all new greenfield developments, large scale redevelopments and capital works projects. WSUD guidelines to direct development and re-development will be completed in 2005.
- The Government will set up a scheme so that developers can meet their WSUD obligations by contributing to more beneficial WSUD measures off site.
- The Government will seek opportunities to retrofit WSUD measures into developed areas where such measures currently do not exist.

If Canberra is to benefit from the increased urban and rural amenity arising from good water management, innovative new systems and products will need to be developed.

- By the end of 2004, the Government will investigate the feasibility of a fund to encourage innovation in water management.

### Promote and provide for community involvement and partnership in the management of the ACT Water Resources Strategy

Meeting the Strategy's objectives cannot be achieved without the involvement of the entire community.

- The ACT Government will implement an Information and Awareness Program to help meet the ACT's water resources management Goal and Objectives, particularly to improve the efficiency of urban water use. The aim of the program is to achieve continual, long-term savings in the community.

Community groups have indicated that they are ready and willing to engage in activities to educate and involve the community in community-based projects around sustainable water use and management. This will be supported by:

- development of a community-oriented learning and action package which can be tailored by various groups, based on what is relevant for their needs
- working with the community to develop initiatives that will support groups to undertake development and delivery of community water learning projects.

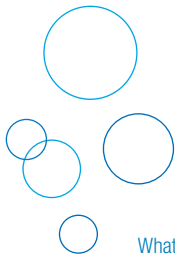
### Implementation

A strategy requires clear implementation actions if it is to achieve its outcomes. A key component of **Think water, act water** is a set of actions designed to meet each of the Strategy objectives and identifying the government agency responsible for achieving these outcomes. Details of the implementation actions for **Think water, act water** are included in the following table.

### Review

The Strategy will undergo regular review every five years to ensure it remains current. The implementation plan included will be reviewed every year to ensure its objectives are being achieved.

The ACT Water Report will report annually on the effectiveness of implementation.



# Think water, act water implementation plan

What	Action	Principal Policy Responsibility	See Section
<b>Water Planning Variables</b>			
Bushfire Impacts	Continue research and analysis to gain a more accurate understanding of the likely impact of bushfires on water supply.	ACTEW	3.2
	Complete the installation of treatment facilities at the Mount Stromlo Water Treatment Plant.	ACTEW	3.2
	Stabilise and rehabilitate the fire-affected sections of the Cotter catchments where appropriate.	DUS	3.2
Climate change	Planning for the ACT's water resources will continue to take account of future climate change predictions for the ACT.	ACTEW	3.3
<b>Objective 1: Provide a long-term, reliable source of water for the ACT and region.</b>			
Water cap	By December 2005, aim to complete an MOU with the NSW and the Commonwealth governments that will include provision for a water cap.	CMD	4.1.2
Water supply augmentation	By December 2004, a range of planning scenarios will be developed on the basis of information on climate change, bushfire impacts and population growth which will help identify when a new water supply source would be needed and the demand to be supplied.	CMD/ACTEW	4.1.3
	By December 2004, provide recommendations on the more efficient use of the existing infrastructure, including the option to use Lower Cotter when the new water treatment facility is commissioned.	CMD/ACTEW	4.1.3
	By March 2005, provide recommendations on the options for a new water source for the ACT, including smaller scale options.		
<b>Objective 2: Increase the efficiency of water usage</b>			
Mandatory labelling	The Government will support a national scheme for compulsory water efficient labelling of appliances.	DUS	4.2.1
	The Government will provide information on water efficient appliances and their water saving benefits.	DUS	4.2.1
Minimum performance standards	The Government will promote agreement across Australian jurisdictions so that only water efficient appliances, such as AAA showerheads (by 2007) and AAAA washing machines (by 2010) are available for sale in the ACT and the rest of Australia.	DUS	4.2.1
Water efficiency team	The Government will establish a team to implement actions as part of <b>Think water, act water</b> . This team will administer water efficiency programs, communication and awareness programs, coordinate other strategy implementation activities, and provide advice to householders, industry and government.	DUS	4.2
Water efficiency house and garden program	Implement the following Water Efficiency programs to improve the efficiency of water use in the house and garden. These programs will be reviewed and revised as necessary but at least once per year.	DUS	4.2
Showerhead rebate	Provide a rebate for AAA showerheads commencing in 2004–05.	DUS	4.2.3
Subsidised indoor water tune-up	Provide a subsidised indoor water tune-up program for households, which provides written advice on water efficiency, and fitting of an AAA showerhead, up to two tap valves or flow regulators, and up to two tap washers commencing in 2004–05.	DUS	4.2.3
Subsidised installation of AAA toilet	Subsidise the supply and fitting of an AAA rated 6/3 litre dual flush toilet to replace a single flush toilet commencing in 2004–05.	DUS	4.2.3

What	Action	Principal Policy Responsibility	See Section
Subsidised garden water tune-up	Provide a subsidised garden water tune-up program for households, which provides written advice on garden water efficiency and products to save water commencing in 2004–05.	DUS	4.2.3
Encourage the installation of rainwater tanks	Commencing in 2004–05, revise the rainwater tank rebate program to: <ul style="list-style-type: none"> <li>• waive development and plumbing approval fees to encourage the installation of larger tanks</li> <li>• include a scaled subsidy program for a greater range of tank sizes, and an additional subsidy for connection to a toilet or washing machine cold water tap.</li> </ul>	DUS	4.2.3
	Investigate bulk buying arrangements to ensure that Canberrans can purchase rainwater tanks at the lowest price possible.	DUS	4.2.3
Rebate scheme evaluation	The Government will evaluate rebate programs annually and continue to investigate opportunities to redistribute rebate program funding to more beneficial programs in the future as water efficient technologies evolve.	DUS	4.2.3
Government water savings	Commencing in 2004–05, develop and implement water efficiency programs with government users.	DUS	4.2.4
Commercial water savings	Commencing in 2004–05, develop water efficiency programs with commercial and institutional users, focusing on large commercial and institutional premises.	DUS	4.2.6
Regulations	In 2004, after further community consultation, permanent water conservation measures will be introduced to: <ul style="list-style-type: none"> <li>• restrict the watering of lawns and gardens to morning and evening hours</li> <li>• ban hosing of hard surfaces including driveways and windows</li> <li>• control the use of sprinklers for dust suppression</li> <li>• introduce compulsory use of trigger hoses for car washing.</li> </ul> <p>In 2004, new plumbing practice notes will be introduced to:</p> <ul style="list-style-type: none"> <li>• require separation of washing machine and bathroom drainage in new houses from the remainder of the wastewater system to enable future reuse</li> <li>• require separation of the water supply to toilets and washing machines in new houses to enable future rainwater use.</li> </ul>	DUS/ACTPLA/ ACTEW	4.2.7
Water reuse	By September 2004, develop guidelines for use of domestic greywater and include information in community awareness programs.	DUS/Health	4.2.8
	Investigate the potential for sustainable use of reclaimed water, taking into consideration cost-effectiveness, environmental, social and health issues. The analysis will take into account the Government's commitment to the water efficiency and reuse targets, to water sensitive urban design and to protection of water quality downstream of the ACT. Outcomes from this investigation may be adopted through such mechanisms as changes to urban design or modification to licensing of discharges from point sources.	DUS	4.2.8
	By April 2004, progress implementation of Stage 2 of the North Canberra Effluent Reuse Scheme as appropriate.	ACTEW	4.2.8
	The Government will require any building it builds or procures for its use to incorporate features to maximise efficiency of water use and to reduce demand on mains water through use of alternative supplies, such as stormwater, rainwater and reclaimed water.	DUS	4.2.8
	The Government will support some of Australia's leading, Canberra-based research organisations in working with the ACT community to find cost effective, innovative, sustainable solutions for reclaimed water use while protecting public health.	DUS	4.2.8

What	Action	Principal Policy Responsibility	See Section
<b>Objective 3: Promote development and implementation of an integrated regional approach to ACT/NSW cross-border water supply and management</b>			
Integrated water supply strategy	The Government will take a lead role in developing the integrated water supply strategy. The Government expects to negotiate this strategy with the NSW and Commonwealth governments before the end of 2004.	CMD	4.3.2
Catchment management	The Government will formalise catchment management arrangements to ensure better directed, more coordinated outcomes and to better protect our water supplies.	DUS	4.3.3
Sub-catchment management plans	Formalise a process to use sub-catchment plans as input into the Government's Capital Works Program and management decisions.	DUS	4.3.4
Resource management framework	The ACT Government will seek the agreement of the NSW Government and regional local councils to adopt best practice principles as the basis for water resource management generally.	DUS	4.4.3
<b>Objective 4: Protect the water quality in ACT rivers, lakes and aquifers, to maintain and enhance environmental amenity, recreational and designated use values and to protect the health of people in the ACT and down river.</b>			
Water quality	The Government will continue environmental and health water quality protection programs, working with the community to meet the aim of the same or better quality for water leaving the ACT as that entering.	DUS	4.4.1
Riparian zone management plan	The Government will require that management of riparian zones in the ACT be consistent with the Riparian Zone Management Plan in Volume 2 of <i>Think water, act water</i> .	DUS	Volume 2
Environmental flow review	Using the new scientific knowledge gained since 1999, the Government will review the <i>Environmental Flow Guidelines</i> in 2004.	DUS	4.4.2
Water monitoring	Undertake a review of water resource monitoring to: <ul style="list-style-type: none"> <li>• identify and communicate clear objectives for each monitoring program</li> <li>• identify common data interests and objectives of monitoring programs to facilitate synergies</li> <li>• ensure monitoring objectives are the basis for design of monitoring programs</li> <li>• undertake the review as a collaboration between agencies and the community.</li> </ul>	DUS	4.4.4
Adaptive management	The Government will recognise the importance of continuous reassessment and improvement in the sustainable management of water resources and use adaptive management to ensure best practice management of the ACT's water resources.	DUS	4.4.4
<b>Objective 5: Facilitate incorporation of water sensitive urban design (WSUD) principles into urban, commercial and industrial development</b>			
WSUD planning	The Government will seek the advice of the ACT Planning and Land Council on best practice implementation of WSUD.	ACTPLA	4.5.2
Developer contributions to WSUD measures	The Government will develop a scheme so that, in some circumstances, developers can contribute to off-site works to meet their WSUD obligations.	ACTPLA/DUS	4.5.2
Greenfield development	In consultation with industry, the Government will require that best practice, cost effective WSUD measures are used in the construction of all new greenfield developments, large-scale redevelopments and capital works projects. By June 2005, the Government will develop guidelines for the application of WSUD.	ACTPLA	4.5.2
WSUD in developed areas	The Government will seek opportunities to retrofit WSUD measures into developed areas where such measures currently do not exist.	ACTPLA	4.5.2
	In consultation with industry, the Government will require best practice WSUD measures to be used in construction of all residential redevelopments and dual occupancies.	ACTPLA	4.5.2

What	Action	Principal Policy Responsibility	See Section
Advisory material	The Government will develop advisory material to provide practical advice to builders and home owners on appropriate approaches to WSUD (e.g. rainwater tanks, greywater reuse, landscaping measures, use of water efficient fixtures and appliances).	ACTPLA	4.5.2
Innovation fund	By December 2004, investigate the feasibility of establishing of a fund to encourage innovation in water management.	CMD/Treasury	4.5.3
<b>Objective 6: Promote and provide for community involvement and partnership in management of the ACT Water Resources Strategy</b>			
Information and awareness	Commencing in July 2004, implementation of an Information and Awareness Program to help meet the ACT's water resources management Goal and Objectives, particularly to improve the efficiency of urban water use.	DUS	4.6.2
	The Government will support community involvement and partnerships by: <ul style="list-style-type: none"> <li>• developing a community-oriented learning and action package which can be tailored by various groups, based on what is relevant for their needs</li> <li>• working with the community to develop initiatives that will support groups to undertake development and delivery of community water learning projects.</li> </ul>	DUS	4.6.2
Reporting on progress	Progress on implementation of <b>Think water, act water</b> will be reported annually in the ACT Water Report.	DUS	5

