



**Australian Government**  
**Productivity Commission**

# Market mechanisms for recovering water in the Murray-Darling Basin

Productivity Commission  
Issues Paper

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## **KEY DATES**

Receipt of terms of reference	24 July 2009
Due date for submissions	18 September 2009
Release of draft report	early November 2009
Draft report submissions due	early December 2009
Final Report	24 January 2010

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### ***The Productivity Commission***

The Productivity Commission is the Australian Government's independent research and advisory body on a range of economic, social and environmental issues affecting the welfare of Australians. Its role, expressed most simply, is to help governments make better policies, in the long term interest of the Australian community.

The Commission's independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the wellbeing of the community as a whole.

Further information on the Productivity Commission can be obtained from the Commission's website ([www.pc.gov.au](http://www.pc.gov.au)) or by contacting Media and Publications on (03) 9653 2244 or email: [maps@pc.gov.au](mailto:maps@pc.gov.au)

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## Terms of reference

### Productivity Commission Study into Mechanisms to Purchase Water Entitlements

#### *Background*

On 13 February 2009 the Australian Government agreed to request that the Productivity Commission conduct a study into alternative market-based mechanisms that could be used to diversify its water purchase program and secure access to the suite of entitlements necessary to restore balance to the use of the Murray-Darling Basin water resources in a timely manner.

The Restoring the Balance in the Murray-Darling Basin program currently uses an open tender process as the principal way of purchasing water entitlements from willing sellers to restore environmental flows and is being implemented over a ten-year time frame. Restoring environmental flows will provide more water for high value environmental assets, as well as protect against algal bloom outbreaks, salinity and other water quality risks that threaten the health of our rivers and the livelihood of our farmers and regional communities.

#### *Scope of the Study*

1. Review the mechanisms used nationally and internationally by governments to purchase water entitlements or similar property rights, including reverse tender processes.
2. Identify appropriate, effective and efficient market mechanisms that could be used to diversify the range of options to purchase water entitlements under the Restoring the Balance in the Murray-Darling Basin program to restore environmental flows.
3. The study would consider, but not be limited to, issues such as:
  - the proposed pace of environmental water recovery and the depth of the water markets in the Murray-Darling Basin
  - transaction and compliance costs for applicants and the Government
  - impact on the water market, particularly where the Government may be the dominant buyer
  - the implications of a developing water market and limited market price information
  - potential to use existing or developing water exchanges, auction houses or on-line water trading platforms
  - potential methods to maximise synergies between water purchase and the Sustainable Rural Water Use and Infrastructure program
  - the capacity to use different mechanisms to purchase a mix of high, general and low security entitlements to meet identified environmental needs
  - the requirements of the Commonwealth Procurement Guidelines and the *Financial Management and Accountability Act 1997*.

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4. Identify impediments to new and established water purchase mechanisms and how these could be overcome.

The Commission is to consider the Restoring the Balance in the Murray-Darling Basin program guidelines, which specify the criteria used to assess sell offers and the conveyancing steps required to complete a water entitlement purchase.

In undertaking the study, the Commission is to consult widely with interested parties including Commonwealth and State Government agencies as well as industry and community groups.

The Commission is to produce and publish a draft report, and to complete its final report within six months of receipt of this reference.

**Nick Sherry**  
**Assistant Treasurer**

[Received 24 July 2009]

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# Abbreviations

CEWH	Commonwealth Environmental Water Holder
COAG	Council of Australian Governments
CPGs	Commonwealth Procurement Guidelines
DEWHA	Department of the Environment, Water, Heritage and the Arts
GL	gigalitre
MDBA	Murray-Darling Basin Authority
MDBC	Murray-Darling Basin Commission
ML	megalitre
RTB	Restoring the Balance



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## **1. How to use this Issues Paper**

This paper is intended to assist you in preparing a submission to the Productivity Commission's study into market mechanisms for recovering water in the Murray-Darling Basin.

The paper outlines a range of issues about which the Commission is seeking information. However, you do not have to answer all of the questions posed in this paper or limit your comments to the issues mentioned. You are free to submit any information you consider relevant to the study's terms of reference. You should give evidence to support your views, such as data and documentation.

Please read Attachment A for details about how to make a submission, and use the submission cover sheet provided at the end of this paper. While the Commission would welcome earlier submissions, your submission should reach us by no later than 18 September 2009. This will ensure that the Commission can give your input due consideration in formulating the study's draft report, which will be released in early November.

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## 2. Scope of the study

The Productivity Commission (the Commission) has been asked to report on market mechanisms for recovering water in the Murray-Darling Basin. This includes identifying appropriate, effective and efficient mechanisms that could be used to diversify the range of options to purchase water entitlements under the Australian Government’s Restoring the Balance in the Murray-Darling Basin program to restore environmental flows. The full terms of reference are in the preface to this paper.

### Background

The Murray-Darling basin (the Basin) covers four states — Queensland, New South Wales, Victoria and South Australia — and the Australian Capital Territory (figure 1). The Basin is Australia’s largest and arguably most important river catchment, and accounts for the majority of irrigated agricultural production. It is also home to many environmental assets, including the many sites identified under the Ramsar Convention, and the source of water for many urban communities.

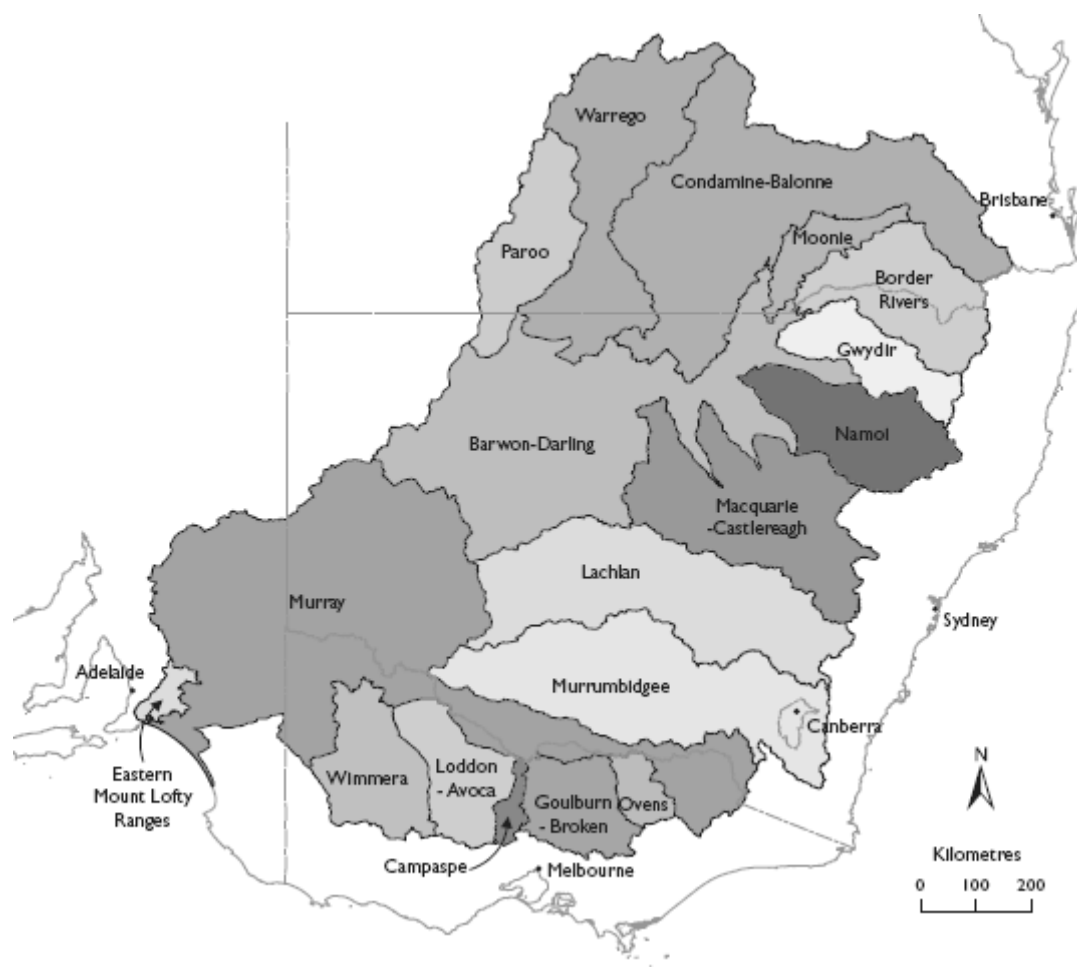
Water shortages in the Basin are placing considerable stress on the environment and consumptive uses. Prolonged drought in recent times has resulted in low inflows meaning much lower allocations to irrigators, and urban water restrictions. But the pressure on the environment has been particularly severe. Over time, the amount of surface and groundwater diverted for consumptive uses has increased, leaving less water for the environment, even in normal conditions. The low current inflows have squeezed the amount available for the environment, and climate change induced reductions are likely to exacerbate these problems in the future.

With so many jurisdictions and competing interests involved, management of the Basin has long been a complex and controversial issue. Under an intergovernmental agreement signed last year by all Basin jurisdictions, management of the Basin will be coordinated under a Basin Plan to be developed by the newly constituted Murray-Darling Basin Authority. This will provide more clearly and explicitly for water for environmental purposes, and will build on previous agreements, such as the Living Murray Initiative under which the jurisdictions agreed to allocate 500 GL to watering environmental sites.

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Figure 1 River catchments in the Murray-Darling Basin

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Source: CSIRO (2008).

## Recovering water for the environment

Recovering water for environmental purposes has in the past been largely achieved through administrative reallocations under state water plans, or by increasing water efficiency through upgrades to delivery and (more recently) on-farm infrastructure. But these mechanisms are now being overlaid with purchases of water entitlements, and the consideration of using other water products, such as leases.

The Australian Government's Restoring the Balance (RTB) program — a part of a broader *Water for the Future* strategy — is the main buyback operation currently operating in the Basin. This program commenced in 2007-08 and is focused on the purchase of water entitlements (box 1).

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**Box 1 Water entitlements in the Murray-Darling Basin**

The *Water Act 2007* (Cwlth) defines a water access entitlement as a 'perpetual or ongoing entitlement, by or under a law of a State, to exclusive access to a share of the water resources of a water resource plan area'. Under the same Act, a water allocation is defined as 'the specific volume of water allocated to water access entitlements in a given water accounting period'.

In the Murray-Darling Basin, entitlements differ according to the jurisdiction concerned and whether the water supply is regulated or not. In regulated systems, entitlements are associated with one or more storage facilities and allow irrigators to determine when water is released and the nature of its use. In contrast, access to unregulated rivers (those without storages), yields water volumes that are influenced by seasonal stream conditions. Water can be accessed once pre-determined flow conditions are met. Much of the Southern part of the Basin is made up of regulated systems, while the Northern part of the Basin has mainly unregulated systems.

Entitlements in regulated systems are distinguished by the degree of reliability attached to them. However, the degree of reliability attached to similarly-named entitlements can vary across the states. Generally speaking, high reliability entitlements can yield 100 per cent of their face value in seasonal allocations 90 per cent of the time or more. Further, they have a higher priority than lower reliability entitlements. The majority of water entitlements are held as general or low reliability entitlements.

Queensland has entitlements of high, medium and low reliability; New South Wales has high, general and supplementary reliability entitlements; Victoria has high and general reliability entitlements; and South Australia has only high reliability entitlements. The provisions for carryover of allocations vary across catchments and across states. However, nearly all catchments presently provide for some form of carryover.

The Australian Government has budgeted to spend \$3.1 billion over a ten-year period on the RTB program, which is managed by the Department of the Environment, Water, Heritage and the Arts (DEWHA). Revisions to the budget have substantially brought forward planned expenditure, but left the total unchanged (table 1). For example, expenditure in 2008-09 was originally budgeted to be \$157 million but was revised upwards to over \$612 million (planned expenditure in the latter stages of the RTB has subsequently been reduced). As a result the Government has quite quickly amassed a portfolio of water entitlements for use on the environment through this program, the total at the end of June 2009 being over 500 GL (of varying reliability). (The *Water for the Future* policy also includes the Sustainable Rural Water Use and Infrastructure Program that has been allocated

\$5.8 billion to fund rural water projects to save water by upgrading out-dated, leaky irrigation systems, \$3.7 billion of which has already been budgeted.<sup>1)</sup>

**Table 1 Budgeted expenditure for the Restoring the Balance buybacks**

<i>Financial years</i>	<i>Budgeted expenditure</i>	
	<i>Original<sup>a</sup></i>	<i>Revised<sup>b</sup></i>
	\$m	\$m
2007-08	50	45.5
2008-09	157	612.6
2009-10	466	464.0
2010-11	468	509.6
2011-12	346	445.1
2012-13	na	506.8
2012-13 to 2016-17	1633	na
2013-14 to 2016-17 <sup>c</sup>	na	516.4

<sup>a</sup> Figures sourced from Hyder 2007. <sup>b</sup> Revised budget figures from 2007-08 to 2012-13 from DEWHA pers. comm., 14 August 2009. <sup>c</sup> Productivity Commission estimate derived from total program expenditure. **na** Not applicable.

Source: DEWHA, pers. comm., 14 August 2009; Hyder (2007); Wong (2008).

In addition to the RTB program, the Australian Government has been purchasing water through an open tender process (operated by the MDBA) to meet its commitments to the Living Murray Initiative. With a total budget of \$50 million, this was a much more modest purchasing program and has now closed. Some of the Basin states have also been or are still actively purchasing entitlements— one notable example being NSW’s Riverbank program.

The overall impact has been that government agencies have become major purchasers of water entitlements in the Basin. While this is generally welcomed by environment groups, some irrigators and regional communities are concerned about the disruption that can be associated with water entitlements moving from local areas and from agricultural production to environmental uses. There have also been concerns about the way that governments have gone about purchasing water entitlements, the mix of entitlements purchased, and where they are being sourced from.

While this study is primarily about the use of market mechanisms for purchasing water to rebalance extractive and environmental uses, it is also about how environmental demands might influence the choices governments should make, the

<sup>1</sup> While \$3.7 billion has been committed, this expenditure is still subject to meeting due diligence requirements.

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interactions between water buybacks, infrastructure upgrades and other ways of recovering water, and the timing of these changes. With three tenders now completed under the RTB program, this study will look at the lessons that have been learned, and whether the mix of instruments being used is the most appropriate, effective and efficient. The study will also draw on the experience of other buyback schemes, nationally and internationally.

## **The Commission's approach**

The Commission has been asked to identify *appropriate, effective and efficient* market mechanisms for purchasing water in the Basin. In addition, the Commission is required to consider the community-wide impacts of the matters it reviews, that is, what policies would produce the highest net benefits, broadly defined, to the community generally?

In this context, *appropriate* might mean that the mechanisms should be consistent with the Australian Government's general powers and obligations, and that in implementing these mechanisms the Australian Government is doing so consistently, equitably and transparently. One way of considering this is to ask how well the mechanisms align with the Australian Government's own procurement guidelines — a specific component of this study discussed in more detail below.

*Effectiveness* refers to how well the outputs of the Australian Government's purchasing program achieve the stated objectives. A first step in identifying effective mechanisms is, therefore, to clarify the stated objectives. Effectiveness is often measured in terms of cost, that is as cost effectiveness. This can involve comparisons of the cost of alternative methods of achieving the same or similar outcomes. Alternatively, it could involve comparisons of the effect produced by alternative methods that have the same or similar cost. Effectiveness is an important criterion in this study, as there are many environmental needs for water and different options for delivering that water.

*Efficiency* refers to maximising the net benefit to the community of the purchasing program. It involves having regard to all of the costs and benefits, including the environmental and social impacts. In this project, the most efficient outcome would occur where the net benefits of applying water to competing environmental demands was maximised, having regard to any adjustment costs that might be involved. Market-based mechanisms have the potential to improve efficiency by acquiring water from willing sellers. The interaction between efficiency and effectiveness can be important. For example, water may be recovered efficiently through a market mechanism, but this may not be effective if the water cannot easily be delivered to a valued environmental asset.

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The Commission will also consider whether policy instruments are closely linked to environmental objectives. This is likely to be more efficient and effective and will minimise the extent of unintended consequences, compared to those that might result if an indirect approach is taken. For example, using buyback mechanisms to indirectly achieve structural adjustment or other social objectives might not be the most effective or efficient approach.

### **3. Progress in implementing the Restoring the Balance Program**

The Restoring the Balance program uses a mix of purchasing arrangements, the main instrument being an open, rolling tender process for purchasing water entitlements from irrigators. This is complemented by ‘irrigator-led group proposals’ and ‘exit grant packages for small block irrigators’ (a condition of which is that entitlements must be offered for sale (and accepted) in a subsequent tender). The Australian Government also acquired entitlements through partially funding state government purchases of land and water in the northern Basin.

#### **The tenders**

The principal market mechanism chosen for the RTB program is a rolling tender, under which DEWHA invites holders of entitlements to bid the price and quantity of entitlements they are willing to sell. The tenders are operated on a discriminatory basis, meaning that if accepted, the bidders receive the price they bid, not a uniform market-clearing price. Bids are assessed throughout the tender period, and if considered to be value for money and in compliance with the program guidelines, DEWHA proceeds to an exchange of contracts.

Three rounds of the tender program have now been implemented. The first tender occurred in 2008 and purchased over 24 GL of entitlements of varying reliability. Subsequently, two further open tenders have been completed, one focusing on the northern part of the Basin, the second on the southern part of the Basin. While separate information on the amounts purchased and prices paid in each of these tenders is not available, the three tenders account for the bulk of the purchases made so far (table 2).

Although purchases have been made throughout the Basin, one single purchase stands out. This was the purchase of a package of water entitlements amounting to 240 GL of varying reliability for \$303 million from the Twynam Agricultural Group.

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## **Irrigator-led group proposals**

The irrigator-led group proposal component of the RTB program allows groups of irrigators to develop a coordinated bid to sell water to DEWHA, which could lead to the decommissioning or reconfiguration of shared off-farm infrastructure that is causing high losses of water. The Australian Government is inviting irrigators to work with their irrigation operator and other directly affected parties to develop these proposals. It expressed its interest in purchasing not only the entitlements, but also any share of the conveyance water savings that become available. The Australian Government may make a contribution to infrastructure costs, where this contributes toward objectives of the Water for the Future program.

The Commission understands that several proposals are under discussion but none have been finalised to date. No deadline has been set by the Australian Government for receipt of irrigator-led proposals.

## **Purchases of land and water**

Under a ‘purchase of land and water’ component of the RTB program, DEWHA is assisting state governments to purchase appropriately located irrigation properties and their entitlements in the northern part of the Basin. The most notable example of this to date was the purchase of Toorale station in September 2008 for \$23.75 million. This property held 14 GL of unregulated water entitlements from the Warrego and Darling Rivers, along with rights to harvest water from the floodplain. New South Wales has taken responsibility for preserving the land, and the rights to take water have been transferred to the Australian Government.

## **Small Block Irrigators Exit Grant Package**

The Small Block Irrigators Exit Grant Package offers eligible irrigators a taxable one-off grant of up to \$150 000 if they agree to leave irrigation and abide by certain conditions (including that they sell all of their irrigation entitlements to the Australian Government through the tender). The grant is available only to irrigators with blocks of 40 hectares or less, and the maximum grant is available only to those with net assets of less than \$350 000 (this phases out by \$2 for every \$3 of net assets in excess of \$350 000 and is extinguished if net assets exceed \$575 000). Associated grants are available of up to \$20 000 for removal of permanent plantings and other production-related infrastructure, and up to \$10 000 for advice and

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training, including skills development, direction-setting plans, succession planning and business advice.<sup>2</sup>

Applications for the Exit Grant package closed at the end of June 2009. The Commission understands that there has been considerable interest in this program, and that the applications are being processed with the assistance of Centrelink. As applications cannot be finalised until the entitlements concerned have been sold (to enable net assets to be calculated), this grant package will take some time to finalise.

### **Water purchases to date**

The combined outcome of the RTB purchase program has, to the end of July 2009, yielded just over 500 GL of entitlements of varying reliability (table 2). These purchases have come predominantly from the tenders, but also include a small component of entitlements purchased through the ‘land and water’ component of the program.

Because it is not particularly meaningful to sum the purchases of entitlements of different reliability, DEWHA has also presented the results in terms of the expected average annual volume of water that should become available. This suggests that approximately 307 GL should be available on average from holding this bundle of entitlements.

The impact of the Twynam purchase is evident in the distribution of purchases across states. Nominally, over 370 GL of entitlements have been sourced from New South Wales, or about 74 per cent of the total volume of entitlements purchased. But expressed in long term equivalent terms, the purchases from New South Wales amount to just over 190 GL or about 62 per cent of the corresponding total. Nevertheless, this does illustrate that the majority of the purchases have so far come from New South Wales.

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<sup>2</sup> The grant is funded through a separate program — the Sustainable Rural Water Use and Infrastructure program — but eligibility is ultimately dependent on applicants selling their water to the Australian Government through the tender.

**Table 2 Entitlements secured under the Restoring the Balance in the Murray-Darling Basin program as at 31 July 2009<sup>a</sup>**

Catchment	Entitlement Type	Purchases <sup>b</sup>	Expected average annual volume of water available	Average price paid per ML (2008-09) <sup>c</sup>
		ML	ML	\$
<b>Queensland</b>				
Border rivers	Medium security	425	170	2 371
<b>Total QLD</b>		<b>425</b>	<b>170</b>	
<b>New South Wales</b>				
Gwydir	General security	70 538	25 394	2 256
	Supplementary	16 324	3 102	na
Barwon-Darling <sup>d</sup>	Unregulated	28 603	28 603	na
Namoi	General security	4 805	3 700	2 033
Macquarie	General security	48 857	20 520	1 274
	Supplementary	1 888	397	na
Lachlan	High security	300	300	na
	General security	78 599	33 012	698
Murrumbidgee	General security	47 606	30 468	na
	Supplementary	20 820	2 915	na
Murray above choke	General security	35 171	28 489	1 308
Murray below choke	General security	16 630	13 470	1 272
Other	Various	390	390	na
<b>Total NSW</b>		<b>370 532</b>	<b>190 758</b>	
<b>Victoria</b>				
Campaspe	High reliability	2 938	2 791	2 380
Goulburn	High reliability	49 600	47 120	2 382
	Low reliability	4 171	1 460	193
Ovens	High reliability	50	48	na
Murray	High reliability	59 406	56 436	2 276
	Low reliability	5 821	1 397	292
Other	Various	200	190	na
<b>Total Victoria</b>		<b>122 186</b>	<b>109 441</b>	
<b>South Australia</b>				
Murray	High security	7 652	6 886	2 381
<b>Total SA</b>		<b>7 652</b>	<b>6 886</b>	
<b>Basin Total</b>		<b>500 795</b>	<b>307 255</b>	

<sup>a</sup> This table includes purchases where contracts have been exchanged as at 30 June 2009. <sup>b</sup> Includes purchases made during 2007-08 and 2008-09. <sup>c</sup> Information on average prices paid is only provided for catchments where contracts have been exchanged with five or more sellers. <sup>d</sup> Includes the water entitlements acquired from Toorale Station. **na** Not available

Source: DEWHA (2009a).

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## 4. Issues

While the terms of reference for this study focus on alternative market-based mechanisms that the Australian Government could use to diversify and improve its RTB program, the Commission considers that this issue can only be answered by first looking at reasons why the Australian Government is purchasing water. This is because some understanding of how much water is needed, and when and where it is needed, may be instrumental in deciding how, when and where the water should be acquired.

Furthermore, buying water is not the only approach governments are using to recover water. First, very considerable amounts of money have been earmarked for upgrading infrastructure to reduce losses from leakage and evaporation. Second, an administrative reallocation of water will be made under the forthcoming Basin Plan (box 2) now being developed by the Murray-Darling Basin Authority (MDBA) (Wong 2009). The interaction between these different approaches can have considerable implications for efficiency and effectiveness.

### Box 2 The Basin Plan

To help rationalise the allocation of water within the Murray-Darling Basin the Murray Darling Basin Authority is required to develop and implement a Basin Plan by 2011 that will set environmentally sustainable diversion limits on quantities of surface water and groundwater extraction. A key part of the Basin Plan will be an environmental watering plan that will set environmental objectives and targets for water-dependant ecosystems across the Basin. This will govern the allocation of both water held by the Commonwealth Environmental Water Holder (a statutory position created under the *Water Act 2007* (Cwlth) to manage the water entitlements that the Commonwealth is currently acquiring) and planned environmental water provided for under the Basin Plan. The Basin Plan will set requirements that must be met under new state watering plans to be introduced in 2014 in all affected jurisdictions except for Victoria, which is scheduled to introduce its next water plan in 2019. These must be approved by the Murray-Darling Basin Authority.

In the meantime, the Australian Government's water purchasing priorities have been guided by the findings of Basin-wide scientific studies on water availability and ecosystem health, as well as information on the specific needs of particular environmental assets, and the difference between current levels of use and the sustainable diversion limits, which are expected to be established in 2011.

Source: MDBA (2009a); DEWHA (2009b).

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## Why water is being recovered for the environment

For many years, the development of the Basin was focused on increasing use of water for irrigation and urban consumption, with little explicit recognition of the needs of the environment. The amount of water entitlements continued to grow until 1995 when a cap was introduced on Basin-wide diversions. Despite this, little was left for the environment and low inflows in recent years have further reduced the amount available to sustain important environmental assets.

Shortages of water and changes in flow characteristics are having detrimental impacts on the health of fauna and flora in the Basin, particularly in downstream regions. There has been a reduction in the frequency and magnitude of flooding events that are critical for the maintenance and rejuvenation of wetlands and floodplain forests. The lower lakes near the mouth of the Murray are particularly affected. As a result of less inflow, the lakes are drying, with the risk that subsequent rewetting could lead to the acidification of exposed soils and detrimental effects on the lakes' ecology (Brookes, et al. 2009). Further upstream, changed river flows have led to contractions in wetlands, declining native fish numbers, rising salinity levels and algal blooms (MDBA 2009b).

While much attention is paid to the six icon sites (under the Living Murray Program) and other sites listed under the Convention on Wetlands of International Importance (known as the Ramsar Convention), there are many environmental resources that could benefit from additional water. But environmental needs can vary significantly from one site to another in terms of the quantities needed and the timing, frequency, extent and duration of application. There may also be tensions between the needs of different species.

Balancing the returns that might be achieved from allocating additional water to these often competing environmental uses in a way that reflects community values is challenging. In particular, this is because of the absence of market values associated with environmental benefits, and the differing priorities and information systems of the jurisdictions concerned.

Even if values could be placed on environmental resources, it would still be difficult to develop an environmental watering plan that delivers water to the most valued environmental resources in the most cost-effective manner. Hydrological constraints mean that water purchased in one part of the Basin may not be deliverable to other parts, or that conveyance losses could be substantial. For example, a megalitre of water purchased from the Gwydir catchment in the upper reaches of the Northern Basin would be expected to only yield about 0.17 megalitres at the mouth of the Murray River, and that is assuming pre-development conditions and the historical climate (CSIRO 2008). And depending on where the water is purchased, it may be

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intercepted by other users before it can be delivered. Adding to the complexity of the problem, many wetlands are located on private property, and care may need to be taken not to crowd out any private initiative. Furthermore, while water may be a necessary input for sustaining environmental resources, other inputs may also be required, such as control of livestock, feral animals and weeds.

Ideally, water would be allocated among all competing uses to produce the best overall return to the community. But as this discussion suggests, many questions remain about how much water should be purchased and when and where it is needed.

### **What are the objectives of the Restoring the Balance program?**

The RTB program is a component of the Water for the Future strategy, the aims of which are broadly to ‘secure the water supply for all Australians’ to, among other things, use water wisely and improve the health of our rivers’ (DEWHA 2008). The objectives of the RTB program are more specific in that the program is focused on the acquisition of water entitlements for the environment:

The goal of Restoring the Balance in the Murray-Darling Basin is to acquire water entitlements from willing sellers that represent value for money, and use the water allocated to them for the environment. This will improve the health of the Basin’s rivers, wetlands and floodplains. (DEWHA 2009c)

This goal statement suggests that the primary purpose of the RTB program is to obtain water for the environment in a cost-effective manner. Purchases should be made from ‘willing sellers’ and ‘represent value for money’. But the focus on purchasing entitlements, and not, for instance, seasonal allocations, also hints at its other purpose, which is to help achieve a lasting change in the allocation of water to the environment. Buying seasonal allocations might help the environment in the short term, but buying permanent entitlements helps it in the longer term.

The Minister for Climate Change and Water, the Hon. Penny Wong has made it quite clear that the RTB program is a means for smoothing the transition to the lower diversion levels likely to prevail under the forthcoming Basin Plan. By acquiring entitlements from willing sellers, it is hoped that any subsequent reduction in entitlements that might have been required once the Basin Plan and contingent sustainable diversion limits are implemented (and hence the impact on remaining irrigators) will be minimised. In other words, the buyback could reduce the gap between current levels of water use and the sustainable diversion limits anticipated in the future. But it is not clear that the focus on clawing back the over-allocation by purchasing entitlements is the best or only way of making the

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transition, or that this will best meet the needs of the environment, particularly in the short term.

While the RTB program's focus on purchasing entitlements seems to exclude other possibilities for meeting environmental needs, such as purchasing seasonal allocations, or derivative products such as leases or options contracts (these are discussed below), the Commission considers that these deserve consideration, whether as part of the RTB program or elsewhere in the Australian Government's policy toolbox.

There is also the risk that by focusing on entitlements before the Basin Plan is finalised, DEWHA could end up purchasing the wrong amount or distribution of entitlements. This could decrease the effectiveness of the Commonwealth Environmental Water Holder's (CEWH) watering plans, and/or require that the CEWH trade on the secondary market to obtain the right entitlements. However, while the buyback is not yet operating within the strategic framework of the Basin plan, DEWHA has been using available evidence (box 2) and confers with the CEWH over its purchase program. It is also operating under a broad 'no regrets' presumption that the under-allocation to the environment is so significant and widespread that the risk of purchasing the wrong water has so far been low. But until the Basin plan is in place, this risk will steadily increase.

While clarifying environmental demands is a key first step it is also important that the Australian Government has the right tools at its disposal to supply environmental flows when and where they are needed. This might not only affect the pattern of purchases within the broader Basin, but also the market mechanisms it might use, and the type of water products that it purchases (for example, entitlements for long term regular use and options for occasional specified events).

*Is the focus on acquiring entitlements the best way of achieving the environment's needs?*

*Is a 'no regrets' presumption a reasonable basis for purchasing entitlements, and at what point does this cease to be the case?*

*What are the arguments for continuing the buyback after the new Basin Plan is implemented in 2011, and associated state water sharing plans start to be implemented in 2014?*

*What implications do environmental demands across the Basin have on the targeting of purchases and the mechanisms and instruments that should ideally be used?*

*How should environmental water be allocated across competing projects and sites?*

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If the objective of the buyback is an adjustment mechanism for irrigated agriculture, and not just a means of reallocating water to the environment, it should be clarified as such. Not only are water purchases seen as helping the transition to a more constrained future, but a special adjustment package has been included to help small block irrigators to exit the industry. This illustrates a concern for helping irrigators and rural communities cope with structural adjustment. But a reduction in the amount of water allocated to consumptive use is not the only influence on these communities. Many influences are at work, including changing market conditions for agricultural produce, technological change, and social and demographic conditions.

*Should the buybacks be designed so as to reduce structural adjustment costs or should adjustment be addressed separately? If the former, are there particular buyback mechanisms that should be used to do this? If the latter, what approach should be used?*

*Does the exit grant package for small block irrigators play a useful role in the overall buyback scheme? Should it be offered again?*

## **The market for water**

The options for purchasing water for environmental purposes have been enhanced with the development in recent years of markets for water entitlements and seasonal allocations. Trade has been occurring in some states for more than 20 years. Initially, trade was confined to intradistrict trades, but under a strategic framework adopted by COAG in 1994 the market has broadened significantly to encompass trade between irrigation districts and states (COAG 1994). Even so, the first interstate trades did not occur until 1998 under a restricted Murray-Darling Basin Commission pilot project on the lower Murray (PC 2006, p. 39).

In practice, the market for water entitlements and water allocations consists of a number of regional markets, with the potential to trade between regions dependent on hydrological and institutional constraints. Institutional differences between the states continue to limit the degree of interstate trade.

Although trade has grown, the overall size of the market in the Basin is still quite modest relative to the total volume of entitlements. It is also characterised by much larger trades of seasonal allocations than trades of entitlements, at least in volumetric terms. For example, in 2006-07 (the year before the RTB program commenced), the total number of entitlements in the Basin was approximately 7000 GL, trade in entitlements was 139 GL, and trade in seasonal allocations was 716 GL.

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The volumes of entitlements traded are also modest relative to the amount of environmental purchases the Australian Government is seemingly planning through the RTB program. Already the Australian Government has purchased over 446 GL of entitlements (of varying reliability), which is several times the pre-buyback size of the market. Although the Australian Government has not specified a volumetric target for the RTB program, the budgeted expenditure of \$3.1 billion in total over ten years would be sufficient to purchase approximately 1500 GL of a mix of general or high security water at the prices that have prevailed in the buyback so far. This indicates that the Australian Government stands to dominate the market for the duration of the buyback.

The entrance of the Australian Government and other governments into the market for water on such a large scale has presumably had some impact on the price of water and background trade between irrigators and other market participants. While DEWHA has taken advice on market prices in conducting the buyback, and all tenders have been heavily subscribed, it would seem probable that prices at the margin have increased. This is because some entitlement holders will be less willing to sell than others, and to obtain the desired quantity of entitlements (or conversely to spend the allocated budget), DEWHA would have had to steadily work its way up through the bids offered.

An issue for this study is the relative impact of using different market mechanisms on the price of water, whether at the Basin-wide level or at a more localised regional level. ABARE has concluded that the impact on prices will depend on the elasticity of demand and the volume purchased, not the mechanism used. Price rises will be greater in regions where a higher percentage of the available water entitlements is purchased and demand is inelastic (ABARE 2007, p. 2).

A further issue of interest to the Commission is the influence that the buybacks are having on trade between irrigators. A well functioning water market is important in enabling irrigators and other market participants to manage risk, allowing them to trade entitlements and seasonal allocations to take advantage of opportunities and adapt to changing circumstances. Some commentators have argued that the buyback has adversely affected the ability of irrigators to undertake structural adjustment in response to other influences (for example, Young and McColl 2009).

*What impact has the Restoring the Balance program had on the price of water entitlements to date? What, if any, impact has this had on the market for seasonal allocations?*

*DEWHA is now publishing average prices paid for entitlements. What impact is this likely to have on bids in subsequent tenders or one-off purchases?*

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*How much influence would the choice of market mechanism used to purchase entitlements for environmental purposes have on the market for water?*

*What impact has the entrance of the Commonwealth (and other governments) into the market for water had on background trade in water between third parties?*

*How would speeding up or slowing down the Australian Government's water purchases influence the effects on trade between irrigators?*

## **What market mechanisms should be considered?**

The focus of the Australian Government's water purchases to date has been on purchasing water entitlements, and this is reflected in the terms of reference for this study. However, the Commission is also asked to look at 'alternative approaches', and consistent with its statutory discretion to explore related issues, is taking a broad approach that does not just focus on entitlements.

A wide range of market mechanisms involving different water products could be used to acquire water for environmental purposes (PC 2006). These include:

- *Purchasing entitlements in the market place.* This would simply involve the environmental manager purchasing entitlements in the open market place like any other purchaser, possibly through a broker or exchange.
- *Purchasing entitlements through a tender (or auction) process.* As discussed this is the principal feature of the RTB program, but this is not to say that it should continue in the form it is operating. Many variations on the model are possible, though whether they would result in improvements needs to be considered. Alternatives might include any or all of the following:
  - using uniform rather than discriminatory prices
  - using binding bids rather than expressions of interest
  - allowing bidders to bid different amounts into the tender at different prices (sometimes referred to as a reverse tender)
  - using one large single round rather than multiple rounds
  - varying the amount of information provided before and after the tender (for example, the practice of announcing average prices paid).
- *Purchasing land and entitlements in the market place.* This technique has been used by the NSW and Australian Governments, with the entitlements transferring to the environmental manager and the land either being sold or managed by the state for its environmental values (for example, the Toorale purchase).

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- *Purchasing seasonal allocations.* As it suggests, this would involve the environmental manager entering the market as and when it needed water for a specific purpose. This is not currently an option used under the RTB program.
  - *Leasing entitlements.* Given that there is an existing market for leasing entitlements, the environmental manager could lease entitlements directly from irrigators, or purchase entitlements and lease back some or all of the water when it is not needed for environmental purposes. Leases could also be configured to release water for the environment under specified conditions.
  - *Purchasing options contracts.* An options contract would typically involve the purchaser paying an up front fee and an additional fee if the option is exercised. The most likely way options contracts would be used would be for the environment manager to purchase a contract that would allow it to exercise the option to purchase a specified amount of water when a certain trigger event occurs. While there are no functioning markets in options contracts for the supply of water for the environment at the moment, the Australian Government is supporting a pilot program in the Murrumbidgee Irrigation area that will explore the potential for a water options exchange for the Murrumbidgee Valley (DEWHA 2009d).
  - *Covenants.* This option could involve purchasing entitlements, changing the conditions of use through a covenant in a way that releases water for the environment under certain conditions and selling the entitlement back into the market. Another variation on this approach would be to compensate holders of unregulated river access licences for changes in the conditions attached to their licences that would free up some water for use on the environment. Governments can, and already do, pay for changes in licence conditions (such as thresholds, timing and quantity) for extractions from unregulated rivers, in order to achieve environmental objectives including the watering of Ramsar wetlands.

Other related instruments might include:

- *Offering subsidies for irrigators to leave irrigation.* This could be operated in various ways, including through an open tender process (irrigators competing on the basis of their willingness to accept, with the lowest offers being accepted first) or through a posted price offer system (the environmental manager posts the conditions under which subsidies will be offered, and closes the offer once sufficient offers have been received, or at a specified time). The Small Block Irrigators Exit Grant — a component of the RTB program — is a posted offer approach that expired on 30 June 2009. It is therefore uncertain how much water will be purchased in this way.
- *Purchasing environmental services.* Although not targeted at clawing back entitlements or allocations, this option focuses directly on the achievement of

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environmental outcomes. Irrigators and others could compete to provide these services by bidding the subsidy they would need to provide particular environmental outcomes, possibly by redirecting water to establish or conserve wetlands and other environmental assets that are privately owned. By focusing on outcomes and not inputs, this approach might also involve changes in land use, such as fencing to control access by livestock.

There are advantages and disadvantages of each of these market mechanisms, with some more suitable to certain circumstances than others. While the Commission will go into these issues in detail in its draft report, readers who have an interest in these options are referred to ABARE (2007), Scoccimaro and Collins (2006), and PC (2006). The Commission will use the effectiveness, efficiency and appropriateness criteria discussed earlier to assess these options.

That said, it is worth noting that before the Australian Government embarked on the RTB program, it asked ABARE to report on the possible mechanisms it might use to purchase entitlements and/or distribute structural adjustment assistance. ABARE provided advice on the advantages and disadvantages of two main options:

- purchasing water entitlements in the open market
- various forms of auctions (ABARE regarded the open tender as a form of reverse auction).

ABARE concluded that, where a market already exists, open market purchases were likely to be the most cost-effective mechanism for purchasing water. In the absence of a market, or when competition among bidders is weak, a discriminatory auction is likely to be more efficient (ABARE 2007, pp. 1-2). However, DEWHA has chosen to rely predominantly on a discriminatory rolling tender process as the central feature of the program.

*What are the advantages and disadvantages of the different market mechanisms that could be used to obtain water for the environment? In particular, how do they compare in terms of compliance and transactions costs and the ability to meet the different watering needs of environmental assets?*

*Are there other market mechanisms, not listed above, that the Commission should be considering?*

*With the benefit of the experience gained from three tenders under the RTB program:*

- *What are the advantages and disadvantages of the chosen rolling tender process?*
- *How could the tender process be improved?*

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- *How do you think an open market process would have fared instead?*

### **Do we need a portfolio of mechanisms and water products?**

A range of different mechanisms are currently used under the RTB program. Arguments for using a portfolio approach include that no one mechanism or product will necessarily suit all circumstances. As ABARE have noted, open market purchases have advantages over tender processes where there are active water markets and vice versa. Generally speaking water markets are now well established and quite liquid, at least at the Basin level, seemingly providing substantial potential for open market operations. But at a more localised level, where purchases need to be closely targeted to provide the water needed, relying on the right entitlements or sales to come on to the market may not be the best approach.

The type of water product sought might also influence the choice of market mechanism. For example, short-term demands could be met by purchasing allocations in the open market. Under such conditions conducting an open tender might be too cumbersome to provide the water needed in a timely manner.

*What mix of market mechanisms and water products should the Australian Government be using to achieve its environmental objectives?*

### **Other examples of market mechanisms for purchasing water entitlements or other similar property rights**

The Commission has been asked to review the mechanisms that have been used in Australia and overseas to purchase water entitlements or similar property rights. There are many examples, but few seem to have been applied on the scale of the RTB purchasing program.

Of most direct relevance to this study, tender processes have been used in both the Living Murray Pilot Environmental Water Purchase program, run by the MDBC in 2007, and the subsequent \$50 million purchase program by the MDBA in June of this year. As the RTB tender drew on the lessons learned from the MBDC's pilot program, there are strong parallels with the recent MDBA tender.

Some state governments or water authorities have also been purchasing water in the Basin. The NSW Government has purchased over 70 GL of water (mostly of general security reliability) through its Riverbank program for environmental use in inland rivers and wetlands. The scheme was set up with funding of \$105 million and is due to continue until 2011. It operates through periodic invitations for expressions of interest from willing sellers. The SA Government has purchased entitlements on

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a less formal basis by negotiating directly with willing sellers. These purchases were part of The Living Murray Program.

The Commission has identified some instances where market mechanisms have been used to purchase water in other countries, most notably in several states of the USA. However, the nature of the property rights attached to water (in many cases these are of an appropriative nature meaning that older water rights have higher priority over more recent water rights) makes trading difficult. Even so, water utilities and environmental trusts have entered the market, mostly to purchase seasonal allocations.

The Commission will also look at other markets for comparative purposes. These could include buybacks of fishing or logging rights, or company share buybacks. The Commission is open to suggestions from participants about which markets it should look at, but is mindful of the need for the lessons to be applicable to the market for water with its varying property rights. For example, while ordinary shares in a public company are identical, the same cannot be said for water entitlements, the characteristics of which can vary greatly according to the type of entitlement and its location. Thus, while the location of the seller of company shares is irrelevant to the buyback, location of the seller is critical in a water buyback, affecting both the buyers' and sellers' decisions.

*What examples of the use of market mechanisms for purchasing water entitlements or similar property rights are you aware of, and what lessons can be learned from these that might apply to purchasing water in the Basin?*

- *How substantial are or were these purchasing programs (for example, in comparison to the total stock of property rights concerned or the size of the relevant market)?*
- *What institutional constraints might limit the degree to which those examples might apply to purchasing water in the Basin?*

## **Upgrading infrastructure**

The various state and territory governments covering the Basin are funding the upgrading of on-farm and off-farm irrigation infrastructure as a means of 'saving' water, either of their own accord or in collaboration with the Australian Government. Depending on the project concerned, the savings may be directed to the environment, to urban supplies or to irrigators. The other aim of government funding of irrigation infrastructure is to 'secure a long-term future for irrigation communities' (DEWHA 2009e).

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Under the Sustainable Rural Water Use and Infrastructure Program (SRWUIP), the Australian Government has allocated \$5.8 billion to rural water projects to save water by upgrading out-dated, leaky irrigation systems. Typically, these projects are targeted at reducing off-farm losses due to leakage, seepage and evaporation from channels and pipes, overflows at the end of channels and reducing meter inaccuracies (for example, Victorian Government 2007). On-farm projects will also be funded through the On-Farm Irrigation Efficiency Program due to commence in 2009-10. Under SRWUIP, water recovered through infrastructure investments is converted into legally secure water entitlements that are then shared between users for consumptive purposes and the CEWH to meet environmental demands.

The interaction between programs aimed at saving water through expenditure on infrastructure and the Australian Government's purchase of water entitlements is a key issue for this study. This is because it might be wasteful to upgrade infrastructure that subsequently becomes underutilised or abandoned as water moves out of the area concerned.

Different approaches to purchasing water entitlements or other water products will have different implications for the utilisation of existing infrastructure and the business case for investment in new infrastructure. For example, an open market approach could create a 'Swiss cheese' effect as geographically dispersed entitlements come onto the market and are purchased by governments. Alternatively, a very targeted approach could be taken that results in some, or all of the water from a region being acquired leading to possibilities to close down parts of the delivery system.

Some considerable effort is now being directed to rationalising irrigation systems, including through closing off channels, handing over control from the irrigation operator to irrigators, and reconfiguring systems to reduce losses. This might involve the irrigation operator negotiating with one or more affected irrigators over the costs of upgrading the delivery system, or conversely, over the savings in conveyance water losses and the termination fees if a particular channel was closed down. This planned approach enables infrastructure upgrades and the possible sale of entitlements (either into the market or to the RTB program or other buyback schemes) to be coordinated. Indeed, the irrigator-led group proposal component of the RTB program explicitly flags the possibility of the Australian Government contributing to the capital costs that might be associated with such a proposal.

An alternative approach would be to amend the pricing of water to be more cost reflective of the actual costs of delivering water to an irrigator's take-off point. Currently, most irrigation districts impose postage stamp systems where all irrigators in a defined area are charged the same average fee that will include an allowance for conveyance losses. Where these losses vary considerably within the

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system, and they are cost-effective to identify and measure, a more cost-reflective pricing system that charged irrigators for actual (rather than system-wide average) conveyance losses would give them much clearer price signals. This would give those irrigators on poorly performing parts of the system the incentives to either demand and pay for (cost-effective) upgrades to the system, move to a better property, or exit irrigation and sell their entitlements.

*Should water purchasing and infrastructure upgrades be coordinated and, if so, how?*

*What potential is there for a more cost-reflective approach to pricing of water delivery to obviate the need for targeting purchases of water?*

*How well has the irrigator-led group proposal component of Restoring the Balance addressed the possibilities for taking group action that coordinates infrastructure upgrades and water sales? How could it be improved?*

## **Impediments to the use of particular market mechanisms**

### *Four per cent limit on trade in entitlements*

Under the National Water Initiative, participating governments agreed to allow jurisdictions to impose a 4 per cent annual limit on the level of (net) permanent outward trade of entitlements from all ‘water irrigation areas’. This measure was seen as a way of managing the rate of adjustment that could be associated with the likely substantial contraction in irrigated agriculture in some areas.

In recent years, the limit has been binding most often in Victoria, but the Commission understands that it is now becoming an issue in other states. There are several reasons why the limit has been more binding in Victoria than other states. One reason is that it is applied to relatively small irrigation areas, thus meaning that, other things being the same, a relatively high proportion of trades are inter-area trades. Further, water that is disassociated from land is included in the limit even though it may, for the time being, stay in place (however, once disassociated that water would be free to trade out of the area in following seasons).

With the much elevated levels of demand now evident in the market since the Australian Government commenced the buyback, the NSW Government became concerned that New South Wales was shouldering an unfair burden in supplying water for environmental purposes. On 3 June 2009, it placed a ban on the sale of water entitlements from New South Wales to the Commonwealth Government for the environment (DWE 2009). While this affected the two RTB tenders that were

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still open at that stage, sufficient applications had been received before the ban became operative for them to be completed successfully. However, future tenders stand to be heavily constrained while the ban remains.

Ongoing tension about the affect of the 4 per cent cap on the buyback has led to an agreement between the Commonwealth and Victorian Governments to allow up to 300 GL of water entitlements to be exempted from the limit over the next five years. Thus the limit can be exceeded where entitlements come either from 'less productive areas' that Victoria will identify, and from irrigators that qualify for the Small Block Irrigators Exit Grant. The agreement also specifies that the limit will be phased out from 2011.

The 4 per cent limit has the potential to distort the pattern of purchases of entitlements by the Australian Government, and deny (or at least delay) the opportunity for willing sellers to participate. This could increase the cost of the buyback. As it only applies to entitlements, the limit does not affect other options to obtain water. For example, it would not affect the leasing of entitlements.

In Victoria, a maximum of 10 per cent of water entitlements in any water supply system can be owned without being associated with land. This limit has the potential to impede government water buybacks, however, the Victorian Government has announced that it will be removed by 31 October 2009.

*What impact is the 4 per cent limit having on the market for water entitlements?*

*What impact is it having on the effectiveness and efficiency of the Australian Government's purchasing programs (both under the RTB program and under The Living Murray)?*

*To what extent are irrigators who wish to sell their entitlement being disadvantaged by the limit?*

*Is a limit on outwards trade the best way to address concerns over possible socio-economic impacts on particular irrigation areas?*

*Is the Commonwealth–Victorian agreement on the 4 per cent limit a satisfactory way to allow a greater quantity of entitlements to be purchased in Victoria?*

*What impact is the NSW Government's ban on sales of NSW entitlements to the Commonwealth for environmental purposes likely to have on the ability of the buyback to obtain water efficiently and effectively?*

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## *Termination fees*

Most irrigation areas developed well before water trading became possible, and without any explicit ex ante contractual arrangements between the operator and the irrigator to cover the eventuality of some irrigators exiting irrigation. With the advent of trading, some operators started charging exit fees, which were payable when an irrigator sold his or her entitlements outside of the area concerned. These fees were meant to compensate the operator (and indirectly those irrigators that remained in the system) for the ongoing fixed costs associated with the water delivery assets that stood to become redundant or underutilised once the irrigator ceased irrigating. But because they were levied at the point of sale of the entitlement and not when the irrigator actually ceased irrigation, they were a substantial barrier to trade. Exit fees were replaced by termination fees, which only become payable upon surrendering a delivery entitlement to the infrastructure operator, and hence arguably have less disruption on the sale of water entitlements. Termination fees are payable at the discretion of the irrigation operator and are generally a multiple of the annual access fee charged by the operator, which is itself set to recover the fixed costs of delivering water (including fixed operating and capital costs).

From 1 September 2009 termination fees will need to comply with new rules recommended by the ACCC and adopted by the Minister for Climate Change and Water in February 2009 (Wong 2009). The rules cap termination fees at 10 times the annual infrastructure access charge. But termination fees may be waived, in whole or in part, depending on the degree to which the operator can avoid costs by reconfiguring or rationalising the remaining infrastructure. This may, for example, occur where a group of irrigators served by a particular spur channel collectively agree to terminate their delivery rights.

*How substantial are the impediments to trade in entitlements created by the imposition of termination fees?*

*Is the potential for irrigation assets to be stranded a relevant concern? Should some buyback mechanisms be preferred over others because they have a lower propensity to lead to stranded assets?*

*Are termination fees likely to help or hinder the efficient use of, and investment in, irrigation infrastructure during the buybacks?*

*How can the right incentives for investment in irrigation infrastructure be achieved during the buyback program?*

*What impact are termination fees likely to have on an irrigator's willingness to sell and the cost of the buyback?*

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### *Transaction costs*

Some commentators have suggested that trading water entitlements has more in common with time-consuming real estate transactions than the speed and simplicity associated with trade in shares. Where trading is difficult, costly or slow, this can create impediments to government water buybacks, as well as to the efficient operation of water markets more generally.

While there may be some valid reasons why the processing of water entitlements can not be done instantaneously, the National Water Commission and others have suggested that there is considerable room for improvement (NWC 2008). Actions that could help reduce transaction costs include:

- completing the separation (or ‘unbundling’) of water access rights from water delivery rights and water use approval processes
- allowing irrigators who hold a right to a share of their infrastructure operator’s bulk entitlement to more easily transform this share into a tradeable water entitlement
- improved arrangements for recording ownership and transfers of entitlements (water registers)
- simplifying processes for interstate trades.

In addition, limited access to, and dissemination of, market information may be impeding the water market.

*Are the costs associated with trading water entitlements (including those associated with delays and lack of market information) higher than they should be?*

*Are these costs a significant impediment to the efficient operation of government water buybacks and the water market more generally?*

*How might these costs be reduced?*

### *Government Procurement Guidelines*

Commonwealth purchases of property and services subject to the Commonwealth Procurement Guidelines (CPGs) should adhere to the general principles of value for money, encouraging competition, efficient, effective and ethical use of resources, and accountability and transparency. Where the total cost of a procurement exceeds \$80 000, the CPGs require that purchases be made using either an open tender, select tender or, in certain circumstances, direct sourcing (DFD 2008).

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DEWHA's use of an open tender to purchase water entitlements appears to meet the requirements of the CPGs for purchases above the \$80 000 threshold. But it is less clear how the CPGs apply to the other components of the RTB, such as the irrigator led group proposals. It is also unclear to what extent the CPGs may limit Australian Government's ability to use alternative market mechanisms (for example, existing water markets or exchanges, outsourcing purchases to water brokers and agents, direct approaches to individuals) or to purchase water instruments other than water entitlements (for example, seasonal allocations, entitlement leases, water options and futures contracts).

*To what extent have the CPGs restricted or limited the design of current DEWHA purchasing mechanisms and the decision to buy only water entitlements?*

*What impact might the CPGs have on the Commonwealth's ability to use alternative purchasing mechanisms to buy water products other than water entitlements?*



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## **Attachment A: How to make a submission**

### **– There is no specified format for a submission**

Submissions may range from a short letter outlining your views on a particular topic to a much more substantial document covering a range of issues. Where possible you should provide evidence, such as relevant data and documentation, to support your views. While every submission is welcome, multiple, identical submissions do not carry any more weight than the merits of an argument in a single submission.

### **– Please fill out the cover sheet**

Each submission should be accompanied by a cover sheet on which submitting individuals and organisations can provide personal and organisational details. For submissions received from individuals, personal contact details (for example, home address, phone and fax number) in the text of the submission will be removed before it is made publicly available. Only the submitter's name and State or Territory of residence will appear in the published submission in order to ensure compliance with privacy laws. A blank submission cover sheet is provided at the end of this paper and an electronic version is available on the study website [www.pc.gov.au/projects/study/water-recovery](http://www.pc.gov.au/projects/study/water-recovery). Copyright in submissions sent to the Commission resides with the author(s), not with the Commission.

### **– Submissions can be of any form**

Submissions may be sent by email, fax, audio cassette or mail. Arrangements can also be made to record oral submissions over the telephone. An electronic copy, if not already provided, would be appreciated either by e-mail or on disk. The electronic version can be either a text document (.doc, .txt) or Adobe Portable Document Format (.pdf). Submissions will be published on the Commission's website in pdf format. Please ensure that the version sent to the Commission is the final version and that you have removed any drafting notes, track changes, annotations and other hidden text and marked revisions. Please also remove any internal links and large logos and decorative graphics (to keep file sizes down). This will enable the submission to be easily viewed and downloaded from the website.

## **Availability of submissions**

The Commission treats all submissions as public and makes them available on our website, unless prior contact has been made concerning confidential content, or there are other timing issues involved, submissions will be posted to the Commission's website on the study's home page as soon as they can be processed where they will remain indefinitely.

**Productivity Commission**  
**SUBMISSION COVER SHEET**  
(not for publication)

**Market mechanisms for recovering water in the Murray-Darling Basin**

**Please complete and submit this form with your submission to:**

Recovering water in the Murray-Darling Basin  
Productivity Commission  
Locked Bag 2, Collins Street East  
Melbourne, Vic 8003

**OR**

**By facsimile (fax) to:**

Vicki Thompson (03) 9653 2305

**By email:** water\_recovery@pc.gov.au

**Organisation:**

**Principal contact:**

**Position:**

**Email address:**

**Street address:**

**Suburb/City:**

**Postal address:**

**Suburb/City:**

**Phone:**

**Fax:**

**Mobile:**

**State & P'code:**

**State & P'code:**

**Please note:**

- For submissions made by individuals, all personal details other than your name and the State or Territory in which you reside will be removed from your submission before it is published on the Commission's website.
- Copyright in submissions resides with the author(s), not with the Productivity Commission.
- Submissions will be placed on the Commission's website shortly after receipt, unless prior contact has been made concerning confidential content, or to request a delayed release for a short period of time. **Submissions will remain on our website as public documents indefinitely.**

**Please indicate if your submission:**

- contains NO confidential material
- contains SOME confidential material (provided under separate cover and clearly marked)