



Australian  
Competition &  
Consumer  
Commission

# **Water trading rules**

## **Issues paper**

March 2009

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ACCC 03/09

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The Australian Competition and Consumer Commission (ACCC) welcomes submissions on the water trading rules issues paper. Responses to these documents should be supported with evidence and data wherever possible.

When making a submission, please title your document, ‘Public submission to water trading rules issues paper by [INSERT NAME] on [INSERT DATE]’.

Where submissions address one or more of the specific questions in this paper (in chapters 5 to 11), the relevant question number(s) should be noted. The ACCC is also interested in stakeholder views on any aspect of water trading not otherwise covered in this issues paper or in a particular question.

If there is any information you would like to request the ACCC not make publicly available, you should provide it in a separate document that has ‘Confidential’ clearly marked on every page.

The document containing confidential information should have a title such as ‘Confidential annexure to submission by [INSERT NAME] on [INSERT DATE]’. (Information on the treatment of confidentiality is discussed in section 1.3.)

Provision of electronic submissions by email is preferred. The ACCC encourages interested parties to make submissions either in Microsoft Word or in PDF (OCR-readable text format—i.e. they should be direct conversions from the word processing program, rather than scanned copies in which the text cannot be searched).

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Or by mail to the following address:

Water Branch: water trading rules issues paper  
Australian Competition and Consumer Commission  
GPO Box 520  
Melbourne Vic 3001

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## Abbreviations

ACCC	Australian Competition and Consumer Commission
ACT	Australian Capital Territory
COAG	Council of Australian Governments
IGA	inter-governmental agreement
IIO	irrigation infrastructure operator
MDB	Murray-Darling Basin
MDB Agreement	Murray-Darling Basin Agreement
MDBA	Murray-Darling Basin Authority
ML	megalitre
NSW	New South Wales
NWC	National Water Commission
NWI	National Water Initiative
Qld	Queensland
SA	South Australia
the Act	<i>Water Act 2007 (Cwlth)</i>
Vic	Victoria

# Glossary

This glossary endeavours to provide practical meanings of terms; however, readers may need to consider the legal meaning of some terms under the *Water Act 2007* and obtain legal advice on these definitions, if required.

Act	<i>Water Act 2007</i>
Basin state	New South Wales, Victoria, Queensland, South Australia or the Australian Capital Territory.
Basin water resources	all water resources within, or beneath, the Murray-Darling Basin, but not including: <ul style="list-style-type: none"><li>(a) water resources within, or beneath, the Murray-Darling Basin that are prescribed by the regulations</li><li>(b) ground water that forms part of the Great Artesian Basin.</li></ul>
Conveyance loss	water lost through evaporation, seepage etc. The loss is likely to be made up of both fixed and variable components, and can vary substantially between networks and between seasons.
Ground water	<ul style="list-style-type: none"><li>(a) water occurring naturally below ground water (whether in an aquifer or otherwise) or</li><li>(b) water occurring at a place ground that has been pumped, diverted or released to that place for the purpose of being stored there,</li></ul> but does not include water held in underground tanks, pipes or other works.
Externality	the effect of a purchase or use decision by one party that imposes costs or benefits on another party that are not reflected in the market price.
Irrigation right	a right that a person has against an operator to receive water—that is, not a water access right or a water delivery right.
Irrigation infrastructure operator	a person who owns or operates infrastructure for the storage, delivery; or drainage of water (water service infrastructure) for the purpose of providing a service to another person and the operator operates that infrastructure for the purposes of delivering water for the primary purpose of being used for irrigation

Infrastructure operator	a person who owns or operates infrastructure for the storage; delivery; or drainage of water (water service infrastructure) for the purpose of providing a service to another person.
minister	the federal Minister for Climate Change and Water.
National Water Initiative	the inter-governmental agreement on a national water initiative between the Australian Government and the governments of New South Wales, Victoria, Queensland, Western Australia, Tasmania, the Australian Capital Territory and the Northern Territory.
Surface water	includes water in a watercourse, lake or wetland, and any water flowing over or lying on land after it is has precipitated naturally or has risen to the surface naturally from underground.
Tradeable water rights	water access rights, water delivery rights or irrigation rights.
Termination fee	a fee levied by an operator when a delivery entitlement or delivery right is surrendered to the operator to terminate any rights or obligations associated with that delivery entitlement or delivery right (including any requirement to pay an access fee).



# 1 Introduction

The *Water Act 2007* (the Act) provides for the development of a Basin Plan— a strategic plan for water resources in the Murray-Darling Basin. Water trading rules are a key component of the Basin Plan, which is to be prepared by the Murray-Darling Basin Authority (MDBA).

The Act requires the MDBA to obtain the advice of the Australian Competition and Consumer Commission (ACCC) on the water trading rules component of the Basin Plan.<sup>1</sup>

The MDBA has formally requested the ACCC's advice on the development of water trading rules.

This issues paper commences the ACCC's public consultation process (see section 1.1 for more information on the ACCC process).

The paper initially sets out the legislative context for the water trading rules (see chapters 2 to 4) and then turns to particular issues for consultation.

## 1.1 Issues for consultation and consultation processes

Consulting with stakeholders is an important part of the ACCC's process in developing its water trading rules advice for the MDBA. This issues paper begins that consultation process by seeking submissions from stakeholders, including:

- MDB jurisdictional governments
- infrastructure operators
- irrigators and other water users
- water market intermediaries
- other interested parties.

The ACCC is interested in hearing from all stakeholders on the issues identified in the issues paper. In particular, the ACCC is seeking stakeholder views on the existence and magnitude of any barriers or impediments to achieving the Basin water market and trading objectives set out in the chapter 4. Barriers and impediments could take the form of particular rules, practices, administrative arrangements or information deficiencies.

To this end, chapters 5 to 11 contain numbered questions.

Issues specific to water access rights are discussed in chapters 5 to 7. Chapters 8 and 9 focus on water delivery rights and irrigation rights, respectively.

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<sup>1</sup> The framework for the water trading rules and the role of the ACCC are set out in more detail in chapter 3 of this paper.

General issues (not specific to a particular kind of right) are considered in chapter 10 (approval processes and related issues) and chapter 11 (information and reporting issues).

Finally, the ACCC is also interested in stakeholder views on any aspect of water trading not otherwise covered in this issues paper or in a particular question.

Where submissions address one or more of the specific questions in this paper (in chapters 5 to 11), the relevant question number(s) should be noted.

Submissions need to be provided to the ACCC no later than **Friday, 1 May 2009**. Details on how to make a submission are on p. iii of this paper.

Submissions received in response to this issues paper will inform the ACCC's advice to the MDBA. Further opportunities to inform the ACCC's development of water trading rules advice will be available before the preparation of final advice to the MDBA. Specifically, table 1.1 sets out the proposed timeline for the ACCC's consultation process.

**Table 1.1 Proposed times for the ACCC's consultation process**

<b>Date</b>	<b>Item</b>
March 2009	<b>Issues paper</b> released for consultation
August 2009	<b>Position paper</b> released for consultation
December 2009	<b>Draft advice</b> provided to the MDBA and released for consultation
March 2010	<b>Final advice</b> to the MDBA

The MDBA will also consult with relevant stakeholders during this period regarding the other components of the Basin Plan.

After the ACCC has provided its final advice to the MDBA, the MDBA will undertake a separate formal consultation process on the Basin Plan as a whole, including the water trading rules component (see section 3.2 for more detail on this process).

## **1.2 Interaction with other ACCC processes**

Water trading rules are part of a broader package of reforms under the Act aimed at improving water market outcomes. Two other sets of rules developed by the ACCC directly address restrictions on water markets—**water market rules** and **water charge (termination fees) rules**—and are explained in section 1.2.1. The water trading rules are wider in scope—both in terms of the particular rights that they relate to and their application to a broader set of water market participants (including state and federal government agencies).

### 1.2.1 Water market rules

The ACCC recently provided advice to the minister about the water market rules.<sup>2</sup>

The water market rules relate to the actions or inaction of irrigation infrastructure operators who hold a group access entitlement on behalf of their irrigators and deliver water for the primary purposes of irrigation. Such IIOs exist primarily in New South Wales and South Australia.

Transformation arrangements are arrangements that allow an irrigator to permanently transform their irrigation right against an operator into a water access entitlement held by someone other than the operator, thereby reducing the share component of the operator's water access entitlement.

The water market rules deal with restrictions imposed by an operator that either prevent or unreasonably delay transformation or trade of a transformed irrigation right. Once an irrigator holds a separate water access entitlement, they can trade/transfer this without requiring the approval of the operator.<sup>3</sup> (See section 9.1.1 for more information).

### 1.2.2 Water charge rules

The ACCC has recently provided its advice to the minister about water charge (termination fees) rules.<sup>4</sup> When imposed on the sale of water, termination fees can deter otherwise efficient trades and/or transfers. The water charge rules will cap the termination fee (at a multiple of 10 times the annual access fee) that can apply when an irrigator terminates access to an IIO's irrigation network, including where they surrender a delivery right in relation to an irrigation network.

The ACCC also has a role providing advice to the minister on water charge rules for:

- charges payable to irrigation infrastructure operators and bulk water operators<sup>5</sup>
- charges for water planning and management activities.<sup>6</sup>

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<sup>2</sup> See: ACCC, *Water market rules—ACCC advice to the Minister for Climate Change and Water*, available at the Department of the Environment, Water, Heritage and the Arts, viewed 24 February 2009, [www.environment.gov.au/water/action/market-charge-rules.html](http://www.environment.gov.au/water/action/market-charge-rules.html).

<sup>3</sup> Third party approval may be required if the third party (which could include the irrigation infrastructure operator) holds an encumbrance over the transformed water access entitlement, for example, for security.

<sup>4</sup> See: ACCC, *Water charge (termination fees) rules—final advice*, available at the Department of the Environment, Water, Heritage and the Arts, viewed 24 February 2009, [www.environment.gov.au/water/action/market-charge-rules.html](http://www.environment.gov.au/water/action/market-charge-rules.html).

<sup>5</sup> See: ACCC, *Water charge rules position paper—September 2008*, viewed 24 February 2008, [www.accc.gov.au/content/index.phtml/itemId/844409](http://www.accc.gov.au/content/index.phtml/itemId/844409).

<sup>6</sup> See: ACCC, *Water charge rules for water planning and management charges, position paper—January 2009*, viewed 24 February 2008, [www.accc.gov.au/content/index.phtml?itemId=857992](http://www.accc.gov.au/content/index.phtml?itemId=857992).

### 1.3 Treatment of confidential information

The ACCC prefers that all written submissions be publicly available to foster an informed, robust and consultative process. Accordingly, submissions will be considered to be public and will be posted on the [ACCC website](#) unless confidentiality is sought and obtained from the ACCC.

Any information that parties would like to request the ACCC not make publicly available should be provided in a separate document, which should be clearly marked as 'Confidential' on every page. Reasons must be provided to support the request for confidentiality.

The ACCC will only accept a claim of confidentiality if the information is truly confidential in nature. Grounds on which confidentiality could be claimed include that the information disclosed is commercial-in-confidence and/or is non-public information.

The ACCC will not accede to a request for confidentiality if it would not be in the public interest to do so. If the ACCC considers the information should be disclosed (either because it is not confidential or because it would not be in the public interest to receive the information without public disclosure), the ACCC will provide the parties with an opportunity to withdraw the submission (or part of the submission) containing the information. If the submission (or part of the submission) is withdrawn, the ACCC may not take it into account. If a party elects not to withdraw the submission (or part of the submission) the ACCC may disclose the information publicly.

Any information accepted as confidential by the ACCC will not be publicly released by the ACCC, except where required by law (e.g. in response to a request under the *Freedom of Information Act 1982* or a subpoena regarding proceedings between third parties).

### 1.4 Terminology used in this issues paper

The terminology used to describe tradeable water rights (and water management and trading more generally) varies considerably from jurisdiction to jurisdiction.

For the purposes of this issues paper, the terminology and associated definitions contained in the Act will be used wherever possible. These terms are broadly similar—although not identical—to the terms contained in the National Water Initiative (NWI).<sup>7</sup> Where other terminology is used (e.g. on the specific rights or dealings within a particular jurisdiction), this will be noted.

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<sup>7</sup> For example, the NWI and Water Act definitions of 'water access entitlement' differ. The NWI defines it as 'a perpetual or ongoing entitlement to exclusive access to a share of water from a specified consumptive pool as defined in a water plan'. See: *Intergovernmental agreement on a national water initiative*, Schedule B(i), National Water Commission, viewed 12 January 2009, [www.nwc.gov.au/resources/documents/Intergovernmental-Agreement-on-a-national-water-initiative.pdf](http://www.nwc.gov.au/resources/documents/Intergovernmental-Agreement-on-a-national-water-initiative.pdf).

As set out in section 3.1.2, the term **water access right** can include a range of rights to take and/or use water. The issues paper will refer to specific types of water access right—in particular to **water access entitlements** and **water allocation**—wherever necessary. However, references to a water access right should be read as referring to all water access rights, including water access entitlements and water allocations.

## 2 Water trade in the Murray-Darling Basin

Water trading occurs throughout most parts of the Murray-Darling Basin (MDB) already. This chapter sets out how trading has developed, and a snapshot of current trading patterns.

### 2.1 The development of trade in the Murray-Darling Basin

Water trading within the Basin states<sup>8</sup> (intra-state trade) has been possible from the 1980s and has increased significantly over this time.

Water trades between states (inter-state trade) were not possible until 1998, when the Murray-Darling Basin Ministerial Council established a ‘Pilot Interstate Water Trading’ project under the Murray-Darling Basin Agreement, which allowed interstate trade within a defined section of the Murray River. Under this pilot, water users in the South Australian River Murray and the Mallee regions of Victoria and New South Wales were able to buy and sell water access entitlements and allocations across state boundaries.<sup>9</sup>

In June 2004 the Council of Australian Governments (COAG) signed the *Intergovernmental Agreement on a National Water Initiative*, which, among other matters, agreed to expand the area in which interstate trade in permanent water entitlement can occur.<sup>10</sup>

On 19 May 2006 the Murray-Darling Basin Ministerial Council endorsed the necessary Schedule to the Murray-Darling Basin Agreement that enabled the geographic expansion of interstate water trade within the jurisdictions of New South Wales, Victoria and South Australia.

Expansion of interstate water trade from the pilot project to the larger geographic area of the southern MDB meant that water users could transfer entitlements and allocations between the Murray River (upper and lower) and the Goulburn and Murrumbidgee valleys.<sup>11</sup>

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<sup>8</sup> The Act defines a Basin state as any of: New South Wales, Victoria, Queensland, South Australia or the Australian Capital Territory.

<sup>9</sup> Murray-Darling Basin Commission (MDBC), viewed 5 January 2009, [www.mdbc.gov.au/nrm/water\\_issues/water\\_trade](http://www.mdbc.gov.au/nrm/water_issues/water_trade).

<sup>10</sup> *ibid.*

<sup>11</sup> MDBC, *Overview of permanent interstate water trading*, ‘Interstate water trade’ series, factsheet 1 (May 2006), viewed 5 January 2009, [www.mdbc.gov.au/data/page/114/MDB3614\\_Fact\\_Sheet\\_1.pdf](http://www.mdbc.gov.au/data/page/114/MDB3614_Fact_Sheet_1.pdf).

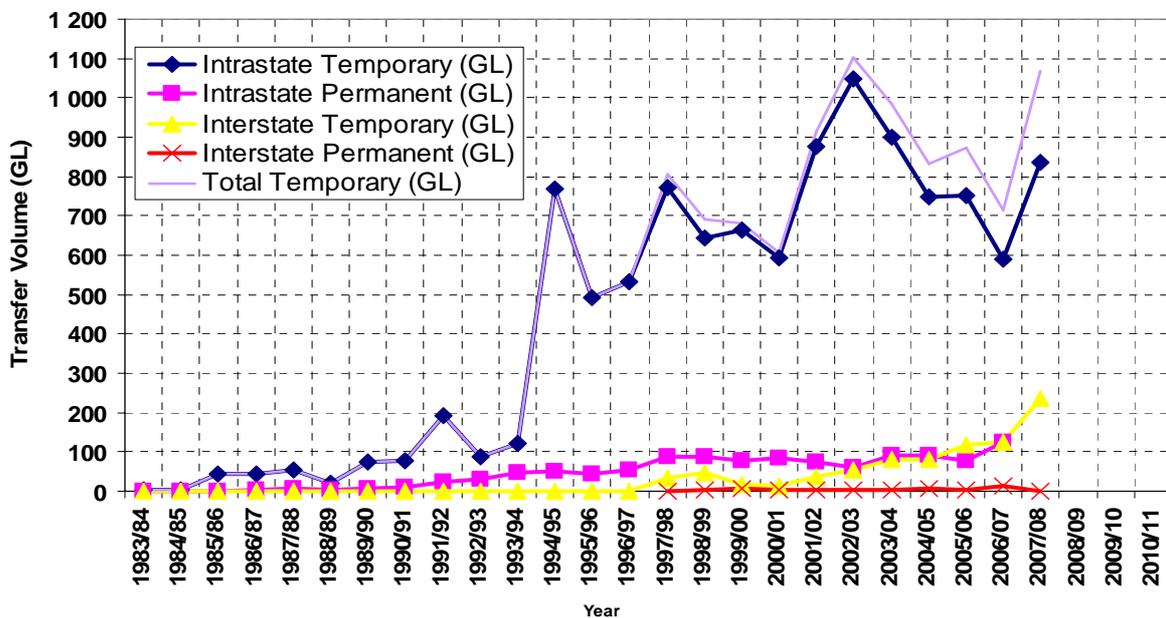
Basin states also began to remove historic linkages of water and land and to unbundle water rights into their composite parts, typically the:

- right to have water delivered
- right to use water on land<sup>12</sup>
- right to construct or operate works (such as pumps or bores)
- right to access and/or take the water itself (which may be further separated into a water access entitlement and a water allocation).

Through these reforms, irrigators and other rights-holders were able to make decisions about one aspect of their operations independently of other considerations. Similarly, governments have been able to use more targeted policy tools to reach their objectives. These unbundling reforms are ongoing in some jurisdictions and in relation to some types of water rights.

The reforms have enhanced opportunities for the trade and transfer of water access entitlements and water allocations. Trades in water access entitlements (commonly referred to as ‘permanent trade’) are generally fewer (by number and volume) than allocation trade (commonly referred to as ‘temporary trade’). Similarly, the volume of trades **between** states is generally far lower than for trades **within** states, as indicated in chart 2.1.

**Chart 2.1 Water trading in the MDB, 1983–2007\***



Source: MDBC October 2007.

\* Please note that the figures are not finalised and should only be considered indicative.

<sup>12</sup> In many unregulated systems, a water access right may still be linked to a particular extraction point (and thereby to a particular piece of land); however, it is often possible to transfer the water access rights to a different location within the system, subject to trading rules.

### **The Basin Cap—a catalyst for water trading**

In 1995 the Murray-Darling Basin Ministerial Council established that continued growth in diversions from the MDB would cause significant detriment to associated river systems. As a result, New South Wales, Victoria, South Australia and Queensland agreed to implement a cap on diversions under Schedule F of the Murray-Darling Basin Agreement. The Australian Capital Territory has since joined the agreement under a memorandum of understanding. The Agreement caps diversions at the volume of water that would have been diverted under 1993–94 levels of development.

In 2008 the Murray Darling Basin Ministerial Council adopted a new Schedule F to the Murray Darling Basin Agreement, which defined caps for Queensland and the Australian Capital Territory as well as updating definitions for the South Australian cap.<sup>13</sup>

The cap has the effect of requiring users to obtain additional water requirements through the market rather than through increased diversions under existing or future entitlements. One result of this is that previously unused or rarely used water rights (often referred to as ‘sleeper’ or ‘dozer’ rights) were increasingly ‘activated’ by their holders.

## **2.2 Recent trading patterns**

The National Water Commission (NWC) recently released its first *Australian Water Markets Report, 2007-2008*.<sup>14</sup> This report draws together data from various government agencies and other sources. The report highlights the continuation of patterns outlined in the previous section and illustrates price differentials between water systems.

### **2.2.1 Entitlement trade in 2007–08**

In the 2007–08 trading year, 921 GL of water access entitlements were traded.<sup>15</sup> By comparison, data from Australian Bureau of Statistics (ABS) shows that just 248 GL of water was traded permanently during the 2004–05 trading year.<sup>16</sup>

In 2007–08, over 863 GL (or 93 per cent) of entitlement trade was in Basin states (although not necessarily within the MDB).<sup>17</sup> The number and volume of entitlements traded in each of these jurisdictions is set out in table 2.1 below.

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<sup>13</sup> MDBC, *Water audit monitoring report 2006/07: Report of the Murray-Darling Basin Commission on the cap on diversions*, June 2008, p. 15, viewed 5 January 2009, [www.mdbc.gov.au/data/page/1782/MDBC\\_WAM\\_2006-07.pdf](http://www.mdbc.gov.au/data/page/1782/MDBC_WAM_2006-07.pdf).

<sup>14</sup> NWC, *Australian Water Markets Report, 2007–2008*, December 2008, p. 2.

<sup>15</sup> *ibid.*, table 3.1, p. 22

<sup>16</sup> ABS 2006, *Water access entitlements, allocations and trading*, Australia, 2004–05, catalogue no. 4610.0.55.003, ABS, Canberra, p. 42.

<sup>17</sup> NWC, *Australian Water Markets Report, 2007–2008*, December 2008, table 3.1, p. 22.

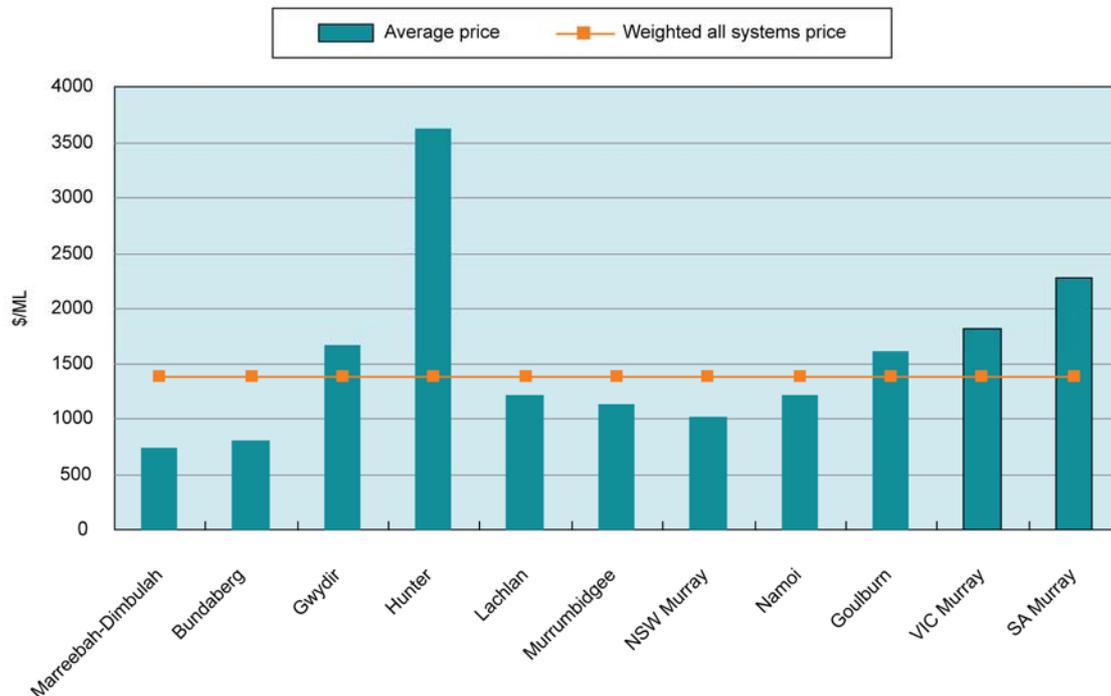
**Table 2.1 Entitlement trade (by jurisdiction), 2007–08**

Jurisdiction	No. of entitlements	No. of ML
New South Wales	874	546 679
Victoria	2 278	223 975
Queensland	611	75 968
South Australia	224	16 983
Australian Capital Territory	6	34
<b>Total</b>	<b>3 993</b>	<b>863 639</b>

Source: NWC, *Australian water markets report*, table 3.1, p. 22.

Negligible interstate entitlement trade occurred during the 2007–08 water year. Chart 2.2 highlights differences in water entitlement prices between different water systems.

**Chart 2.2 Reported water entitlement price averages, 2007–08**



Source: National Water Commission.

Note: 1. Due to limited price information for entitlements, separate prices for general security and high security entitlements are not provided. The prices shown are for combined security classes.  
2. The Marreebah-Dimboolah, Bundaberg and Hunter water systems are outside the Murray Darling Basin.

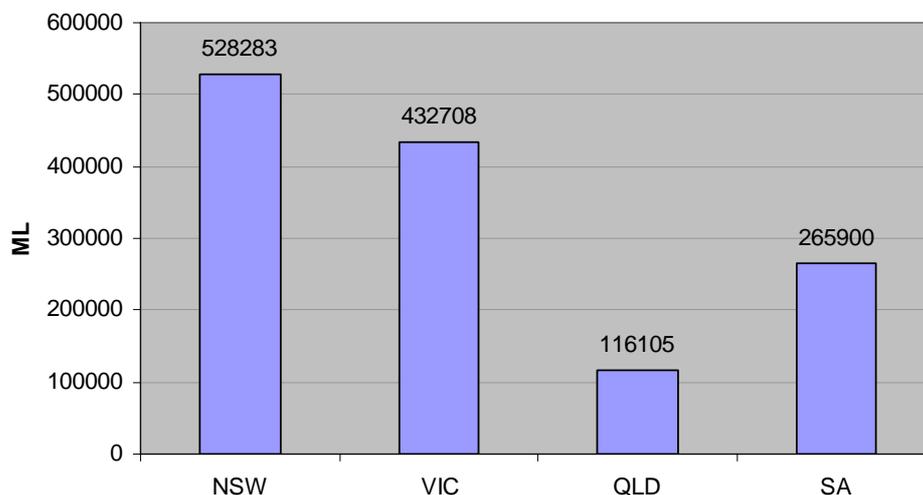
## 2.2.2 Allocation trade in 2007–08

In the 2007–08 trading year, water allocation trade in Australia amounted to 1594 GL, 86 per cent of which was intra-state trade.<sup>18</sup> By comparison, the figure for the 2004–05 water year was 1053 GL.<sup>19</sup>

In 2007–08 around 99 per cent of allocation trades occurred in the Basin states (New South Wales, Victoria, Queensland, South Australia and the Australian Capital Territory), with most of this trade occurring in the Basin itself.<sup>20</sup>

Chart 2.3 shows the volume of intra-state allocation trade for each of the Basin states (except the Australian Capital Territory) in the 2007–08 water year. It is notable that the volume of allocation trade in South Australia was particularly high relative to that state's share of Basin water resources.

**Chart 2.3 Water allocation trade (intra-state), by jurisdiction, 2007–08**



Source: NWC, *Australian water markets report*, table 3.2, p. 24.

Interstate trade is still a small percentage of total water allocation trade. In the 2007–08 water trading year, 14 per cent of allocation trade was interstate trade (approximately 242 480 ML).<sup>21</sup>

During the 2007–08 water year, interstate allocation trade reached the following levels:

- New South Wales—14 544 ML was traded in and 171 174 ML was traded out (net seller of 156 630 ML)
- Victoria—73 175 ML was traded in and 61 795 ML was traded out (net buyer of 11 380 ML)

<sup>18</sup> *ibid*, table 3.1, p. 6.

<sup>19</sup> ABS, *op.cit.*, p. 42.

<sup>20</sup> NWC, *Australian Water Markets Report, 2007–2008*, December 2008, table 3.2, p. 24.

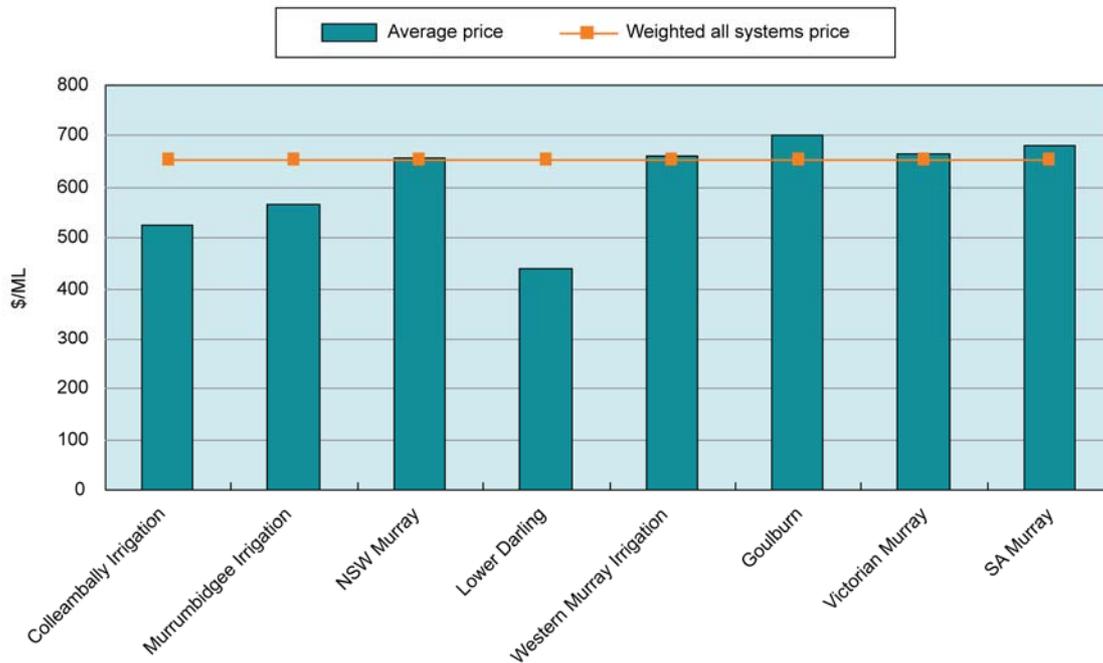
<sup>21</sup> Total allocation trade was 1 732 000 ML. See: *ibid.*, p. 6.

- South Australia—147 582 ML was traded in and 2332 ML was traded out (net buyer of 145 250 ML).<sup>22</sup>

There was no interstate allocation trade to or from both Queensland and the Australian Capital Territory.<sup>23</sup>

Chart 2.4 shows water allocation prices across selected water systems in 2007–08. Average prices in the highly interconnected systems (South Australian Murray, Victorian Murray, New South Wales Murray and the Goulburn) were quite similar.

**Chart 2.4 Water allocation prices, selected water systems, 2007–08**



Source: NWC, *Australian water markets report*, figure 3.4.

Obtaining a clear picture of trading volumes and prices is complicated by inconsistencies in how trades and transfers (volumes and prices) are recorded in registers or otherwise reported. These issues are discussed in chapter 11.

<sup>22</sup> *ibid.*, table 3.2, p. 24.

<sup>23</sup> *ibid.*

### 3 Basin Plan water trading rules and the ACCC's role

Water trading rules will form part of the new Basin Plan. This chapter sets out the process for making water trading rules, the matters and rights they may deal with, how they will interact with rules outside the Basin Plan and how they will be enforced.

The *Water Act 2007* (the Act) requires the Murray-Darling Basin Authority (MDBA)<sup>24</sup> to prepare a Basin Plan to give to the Minister for Climate Change and Water for adoption.<sup>25</sup> The Basin Plan is a strategic plan for water resources in the Murray-Darling Basin, setting out the measures required to ensure that Basin water resources are managed in an integrated and sustainable way.

The Basin Plan must include 'Rules for the trading or transfer of tradeable water rights in relation to Basin water resources.'<sup>26</sup> The potential scope of these rules is considered in section 3.1. Under the Act, in preparing this part of the Basin Plan, the MDBA 'must obtain, and have regard to, the advice of the ACCC'.<sup>27</sup> The process for making the rules is considered in section 3.2.

Currently, rules associated with the trading and transfer of water rights within the Basin are set through state processes and the procedures and policies of infrastructure operators, or under the Murray-Darling Basin Agreement. Rules developed through state processes are often contained within water resource plans. The Act provides for the continued operation of interim and transitional water resource plans, as well as the development of new water resource plans into the future—see section 3.3.

The interaction between the Basin Plan water trading rules and rules contained in water resource plans or other potential sources of trading rules is considered in section 3.4.

Enforcement of the Basin Plan water trading rules (by the MDBA) is considered in section 3.5.

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<sup>24</sup> On 26 March 2008 a communiqué from COAG announced that the existing Murray-Darling Basin Commission and the new Murray-Darling Basin Authority would be 'brought together as a single institution, to be known as the Murray-Darling Basin Authority'.

<sup>25</sup> See s. 41 of the Act.

<sup>26</sup> See s. 22, item 12 of the Act.

<sup>27</sup> See s. 42 of the Act, and compare this with the ACCC's role in directly advising the minister on water market rules and water charging rules.

## 3.1 Scope of the Basin Plan water trading rules

The Act refers to water trading rules as ‘Rules for the trading or transfer of tradeable water rights in relation to Basin water resources’.<sup>28</sup>

### 3.1.1 What are Basin water resources?

Under the Act, Basin water resources are defined as all water within or beneath the Murray-Darling Basin, except for groundwater that forms part of the Great Artesian Basin, or other water resources prescribed by regulations.

The term ‘water resource’ is defined in the Act as:

- (a) surface water or ground water; or
- (b) a watercourse, lake, wetland or aquifer (whether or not it currently has water in it)

and includes all aspects of the water resource (including water organisms and other components and ecosystems that contribute to the physical state and environmental value of the water resource).<sup>29</sup>

This wide scope is narrowed with by the requirement that the trading rules relate to the trading or transfer of **tradeable water rights**.

### 3.1.2 What are tradeable water rights?

Throughout the MDB, the ownership and control of water resources is vested with the states. However, each jurisdiction has assigned rights to access, divert, extract and use this water through legislation—either by providing a right to use water for specific purposes (often the case for stock and domestic rights, for example) or through a licensing regime.

The terminology used to describe these water rights (and water management and trading more generally) varies considerably from jurisdiction to jurisdiction.

The Act uses the general term ‘tradeable water rights’ to refer to<sup>30</sup>:

- **Water access rights**—any right conferred by or under a law of a state to hold and/or take water from a water resource, including a water access entitlements, a water allocation, riparian rights, stock and domestic rights, as well as any other right in relation to the taking or use of water as prescribed by regulations.
- **Water delivery rights**—a right to have water delivered by an infrastructure operator
- **Irrigation rights**—a right that a person has against an irrigation infrastructure operator<sup>31</sup> to receive water that is not a water access right or a water delivery right.<sup>32</sup>

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<sup>28</sup> See, s. 22(1) (item 12) and s. 26 of the Act.

<sup>29</sup> See s. 4 of the Act.

<sup>30</sup> *ibid.*

The term ‘water access rights’ is a broad term which includes the following types of rights:

- **Water access entitlement**—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.
- **Water allocation**—means the specific volume of water allocated to water access entitlements in a given water accounting period.
- **Stock and domestic rights**—this term is not defined in the Act but generally refers to a right to capture or extract water for domestic and (non-intensive) stock purposes.
- **Riparian rights.**
- Any other right in relation to the taking or use of water that is **prescribed by the regulations.**

Water access rights can relate to different types of water resources—for example, groundwater, surface water or water resources in regulated and unregulated systems.<sup>33</sup> Where necessary, this paper draws these distinctions.

### 3.1.3 What can the water trading rules deal with?

The Act states that the trading rule may deal with a number of matters<sup>34</sup>:

- (a) the rules governing the trading or transfer of tradeable water rights;
- (b) the terms on which tradeable water rights are traded or transferred;
- (c) the processes by which tradeable water rights are traded or transferred;
- (d) the imposition or removal of restrictions on, and barriers to, the trading or transfer of tradeable water rights
- (e) restrictions on taking or using water from a water resource as a result of the trading or transfer of tradeable water rights in relation to that water resource;
- (f) the manner in which particular kinds of trading or transfer of tradeable water rights is conducted;
- (g) the specification of areas within which particular tradeable water rights may be traded or transferred;
- (h) the availability of information to enable the trading or transfer of tradeable water rights;
- (i) the reporting of the trading or transfer of tradeable water rights;

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<sup>31</sup> For an explanation of this term, please see chapter 9.

<sup>32</sup> Please note that the transformation of irrigation rights into individually held water access entitlements is a matter for **water market rules** (see section 9.1 for more information).

<sup>33</sup> See section 6.1 of this paper for an explanation of these terms.

<sup>34</sup> See s. 26 of the Act.

- (j) any matter that was dealt with in:
  - (i) Schedule E to the former MDB Agreement (other than paragraph 15(3)(c) of that Schedule); or
  - (ii) the Protocols to the former MDB Agreement made under Schedule E to the former MDB Agreement (other than the Protocol on Access and Exit Fees).

Schedule E of the former Murray-Darling Basin Agreement and its protocols set out:

- adjustments to valley accounts and state basin cap amounts
- the processes for approving interstate permanent and temporary trades
- exchange rates to apply to trades within and between areas, or for the conversion of entitlements from one reliability to another
- processes for ‘tagging’ entitlements for extraction in another state
- trading zones between which water may be traded.

The Act provides that particular trading rules may also be limited to:

- particular kinds of trading (e.g. tagging or exchange rate trade);
- particular kinds of tradeable water rights (e.g. irrigation or delivery rights); or
- particular water resources.<sup>35</sup>

Importantly, the trading rules:

may provide that a person who suffers loss or damage as a result of conduct of another person that contravenes the water trading rules may recover the amount of the loss or damage by action against that other person or against any person involved in the contravention.<sup>36</sup>

Without limiting the matters the rules may deal with, the trading rules must deal with trading and transfers between Basin states.<sup>37</sup>

The Basin Plan (including Basin Plan water trading rules) cannot **directly regulate**:

- land use or planning in relation to land use or
- the management of natural resources (other than water resources) or
- the control of pollution.<sup>38</sup>

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<sup>35</sup> Section 26(4) of the Act.

<sup>36</sup> Section 26(5) of the Act. In terms of the interaction with existing trading rules, barriers and/or restraints, see section 3.4 of this paper.

<sup>37</sup> Section 22, item 12, of the Act.

<sup>38</sup> Sections 22 (10) and (11) of the Act provide guidance on interpreting this requirement. Section 22(12) notes that ss. 22(10) and (11) do not prevent Basin Plan provision having effect to the extent to which they relate to interception activities (referred to in s. 22(7)), water quality and salinity management plan targets (s. 25), environmental water plan targets (s. 28) or requirements to report on steps taken by states to meet targets set in the Basin Plan.

### 3.1.4 Water trading rules—relevant objectives, principles and purpose

The trading rules must contribute to achieving the Basin water market and trading objectives and principles as set out in Schedule 3 of the Act<sup>39</sup> (these arise from the National Water Initiative and are at appendix A).

The **objectives** are:

- (a) to facilitate the operation of efficient water markets and the opportunities for trading, within and between Basin States, where water resources are physically shared or hydrologic connections and water supply considerations will permit water trading; and
- (b) to minimise transaction cost on water trades, including through good information flows in the market and compatible entitlement, registry, regulatory and other arrangements across jurisdictions; and
- (c) to enable the appropriate mix of water products to develop based on water access entitlements which can be traded either in whole or in part, and either temporarily or permanently, or through lease arrangements or other trading options that may evolve over time; and
- (d) to recognise and protect the needs of the environment; and
- (e) to provide appropriate protection of third-party interests.

These objectives are discussed in more detail in chapter 4.

As the trading rules will form part of the Basin Plan, the purposes of the Basin Plan are also directly relevant to the development of water trading rules. In particular, the Act provides:

The purpose of the Basin Plan is to provide for the integrated management of the Basin water resources in a way that promotes the objects of this Act, in particular by providing for:

[...]

- (d) the use and management of the Basin water resources in a way that optimises economic, social and environmental outcomes; and
- (e) water to reach its most productive use through the development of an efficient water trading regime across the Murray-Darling Basin

[...] <sup>40</sup>

When developing / adopting the Basin Plan, the MDBA / minister must:

[...]

- (b) act on the basis of the best available scientific knowledge and socio-economic analysis; and

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<sup>39</sup> Section 22, item 12 of the Act.

<sup>40</sup> Section 20 of the Act.

- (c) have regard to the following:
  - (i) the National Water Initiative
  - [...]
  - (iii) the diversity and variability of the Basin water resources and the need to adapt management approaches to that diversity and variability
  - (iv) the management objectives of the Basin States for particular water resources<sup>41</sup>

The Basin Plan must not be inconsistent with the Snowy Water licence.<sup>42</sup> This relates to the management of water within the Snowy system to ensure the rights and obligations of Snowy Hydro are able to be met.

Finally, the Basin Plan must take into consideration that the Commonwealth and the Basin states have agreed that critical human water needs—in particular, the conveyance water required to deliver water to meet those needs—are to have the highest priority.<sup>43</sup>

## 3.2 Process for making Basin Plan water trading rules

### 3.2.1 ACCC advice to the MDBA

The MDBA ‘must obtain, and have regard to, the advice of the ACCC’ when formulating the trading rules part of the Basin Plan.<sup>44</sup>

The ACCC’s consultation process (described in section 1.1) is distinct from other consultation that the MDBA will undertake in relation to the Basin Plan more generally.

### 3.2.2 The MDBA’s proposed Basin Plan

Once the MDBA has formulated a proposed Basin Plan, including the proposed Basin Plan water trading rules, it is required to:

- Seek submissions from the relevant state ministers and members of the public, in both cases allowing 16 weeks for consultation.
- Prepare a public document summarising these submissions, the MDBA’s responses to them and any other alterations to the proposed Basin Plan

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<sup>41</sup> Section 21(4) of the Act.

<sup>42</sup> Section 21(6) of the Act.

<sup>43</sup> Section 86A of the Act.

<sup>44</sup> Section 42(2) of the Act. Note that the process relating to water trading rules is different to the ACCC’s role in regard to water market rules and water charge rules, where the ACCC is required to provide advice directly to the minister. These advices are the subject of separate processes. The ACCC’s advice on the water market rules and the water charge (termination fees) rules is available on the Department of the Environment, Water, Heritage and the Arts website at [www.environment.gov.au/water/action/market-charge-rules.html](http://www.environment.gov.au/water/action/market-charge-rules.html).

- Provide this document, along with the proposed Basin Plan, to the minister.<sup>45</sup>
- Provide a copy of the proposed Basin Plan to the Murray-Darling Basin Ministerial Council.<sup>46</sup> The Council then has six weeks to advise the MDBA if it or one of its members disagrees with the proposed diversion limits or any other relevant part of the Basin Plan (including the trading rules). The MDBA must consider these comments, undertake any consultation it considers appropriate and advise the Council of its views and any alterations made to the proposed Basin Plan. Following this, the Council has three weeks to advise the minister if the Council or any of its members have any further views on the proposed Basin Plan.<sup>47</sup>

### 3.2.3 Adoption of the Basin Plan

The minister must, within 12 weeks of receiving the proposed Basin Plan from the MDBA, either adopt the plan or send the plan back to the MDBA with suggestions for its considerations.<sup>48</sup>

If the minister sends the plan back, the MDBA must undertake further consultation that it considers necessary or appropriate, and then provide either an identical or an altered version of the Basin Plan to the minister along with its views on the minister's suggestions.<sup>49</sup>

The minister then has six weeks to adopt this Basin Plan or to direct the MDBA (in writing) to make modifications to the Basin Plan and resubmit the plan. The MDBA must make the required changes and the minister must adopt the resulting plan and table in Parliament a document setting out any directions given to the MDBA and the reasons for these directions.<sup>50</sup>

The minister is able to direct the MDBA to make modifications to the proposed Basin Plan in relation to water trading rules.

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<sup>45</sup> Section 43 of the Act.

<sup>46</sup> Section 43A of the Act. This must be accompanied by the MDBA's advice to the Ministerial Council on the 'likely socio-economic implications of any reductions in the long-term average sustainable diversion limits proposed in the proposed Basin Plan'—see section 43A(3) of the Act.

<sup>47</sup> Sections 43A(7) and (8) of the Act.

<sup>48</sup> Section 44(1) of the Act.

<sup>49</sup> Section 44(2) of the Act. The MDBA must also publish a document summarising the submissions it sought in this process, how it addressed the submissions and how this influenced its response to the minister's suggestions.

<sup>50</sup> Sections 44(3) to (7) of the Act. The minister must not give a direction to the MDBA in relation to the parts of the Basin Plan that:

- describe the Basin's water resources
- define its constituent water resource plan areas and water accounting periods
- sets out the risks to Basin water resources
- sets out the method for determining whether diversion limits have been complied, or specify certain matters in relation to any reduction to diversion limits or changes in reliability
- is of a factual or scientific nature.

### 3.2.4 Review of the Basin Plan

The MDBA must review the Basin Plan after 10 years of operation or if requested to do so by the minister or all the Basin states. Such a request can only be made if the requesting party is satisfied that the Basin Plan is not meeting its outcomes or the objectives of the Basin Plan are no longer appropriate, and cannot be made within five years of the commencement of the Basin Plan or any previous review.

In preparing an amendment to the trading rules, the MDBA must again obtain, and have regard, to the advice of the ACCC.<sup>51</sup>

The National Water Commission may audit the effectiveness of the implementation of the Basin Plan and the water resource plans and in doing so, 'must take into account such matters (if any) as are specified in the regulations'. The first audit must be completed by March 2013.<sup>52</sup>

The Act itself will also be reviewed by the minister by the end of 2014. This review will include an assessment of the extent to which the Basin Plan objectives, outcomes and targets are being met.<sup>53</sup>

## 3.3 Water trading rules in water resource plans

In addition to water trading rules in the Basin Plan, rules and restrictions on the trading and transfer of tradeable water rights may also be set out in water resource plans. Water resource plans are statutory management plans developed for particular surface and/or groundwater systems, and are known by different names throughout the MDB (e.g. 'water sharing plans' in New South Wales and 'water allocation plans' in South Australia).

The Act sets out how new water resource plans will be developed under the Basin Plan framework in the future (section 3.3.1). The Act also provides for the continued operation of water resource plans developed before the commencement of the Basin Plan (see section 3.3.2).

### 3.3.1 Water Act water resource plans—Basin Plan requirements

Water resource plans are intended to give effect to the Basin Plan.<sup>54</sup>

To this end, the Basin Plan itself will set out the requirements that a water resource plan must comply with if it is to be accredited or adopted under the Act.<sup>55</sup> This part of the Basin Plan must include requirements relating to a number of matters, including:

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<sup>51</sup> Section 42(2) of the Act.

<sup>52</sup> Sections 87 and 88 of the Act.

<sup>53</sup> Section 253 of the Act.

<sup>54</sup> Parliament of Australia, *Water Bill 2007, revised explanatory memorandum*, paragraph 103, clause 55.

<sup>55</sup> Section 22, item 11 of the Act.

- (g) the circumstances in which tradeable water rights in relation to the water resource plan area may be traded, or transferred, and the conditions applicable to such trades or transfers

*[and, in turn]*

The requirements in relation to the matters referred to in paragraph (g) must contribute to achieving the Basin water market and trading objectives and principles that are set out in Schedule 3.<sup>56</sup>

These requirements must also relate to the sustainable use and management of water resources.<sup>57</sup> For example, the Basin Plan could require water resource plans to include (or not include) rules about particular kinds of trade, trade between particular locations or in relation to particular water resources.<sup>58</sup>

Where the Basin Plan provides for obligations relating to a particular matter (e.g. a particular trading rule) and also requires a water resource plan to impose obligations of the same or a similar kind in relation to that matter, the Basin Plan obligations are to be disregarded.<sup>59</sup>

### 3.3.1.1 Water Act water resource plans—accreditation and adoption

The minister may ask the MDBA (rather than a Basin state) to prepare a water resource plan in a limited number of circumstances and only where the step-in procedures contained in the Act are met.<sup>60</sup>

This process is intended to be used as a measure of last resort by the minister (e.g. when absolutely necessary to ensure that an accredited water resource plan consistent with the Basin Plan is able to be put in place).<sup>61</sup> As such, water resource plans developed under the Act are likely to be developed by Basin states.

For the minister to accredit a water resource plan put forward by a Basin state, the plan must be consistent with the **relevant** Basin Plan.<sup>62</sup> However, it should be noted that in the case of **transitional** or **interim** water resource plans, inconsistency with Basin Plan water trading rules is possible (see section 3.3.2).

The **relevant** Basin Plan is not necessarily the **current** Basin Plan. Instead, the relevant Basin Plan is the one in effect:

- two years before the proposed water resource plan is given to the minister by the MDBA for accreditation, or

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<sup>56</sup> Section 22 (3) of the Act. The Basin Plan must include requirements **in relation to** the circumstances outlined in s. 22(3)(g), not simply a requirement that the water resource plans deal with these matters.

<sup>57</sup> Section 22(1), item 11, 'Specific requirements'.

<sup>58</sup> The MDBA will consider what form these requirements should take in the course of developing the Basin Plan as a whole.

<sup>59</sup> Section 39 of the Act.

<sup>60</sup> Section 68 of the Act.

<sup>61</sup> Parliament of Australia, *op.cit.*, paragraph 124, clause 67.

<sup>62</sup> Sections 55(2) and 63(6) of the Act.

- when the first Basin Plan takes effect (where the proposed water resource plan is given to the minister by the MDBA for accreditation within two years of this occurring).<sup>63</sup>

A plan will only be considered a ‘water resource plan’ to the extent that it relates to Basin water resources and ‘makes provision in relation to the matters that the Basin Plan requires a water resource plan to include’.<sup>64</sup> To the extent that a water resource plan makes provisions **not** required of it by the Basin Plan, those provisions may not be considered as part of the water resource plan for the purposes of the Act.

### 3.3.2 Transitional and interim water resource plans

Existing water resource plans listed in Schedule 4 of the Act<sup>65</sup> (along with any instruments made under or for the purposes of these plans)<sup>66</sup> are taken to be accredited by the minister, even if they are not consistent with the Basin Plan. These are termed ‘transitional water resource plans’.<sup>67</sup> They are only considered transitional water resource plans under the Act to the extent that they deal with the matters listed in s. 22(1) (the mandatory content of the Basin Plan), which includes rules for the trade or transfer of tradeable water rights.<sup>68</sup> Transitional water resource plans cover a significant percentage of the MDB’s water rights (by volume) and are due to expire in various stages from 2012 to 2019.

Water resource plans developed by a state on or after 25 January 2007 and before the commencement of the first Basin Plan are taken to be accredited by the minister, even if they are not consistent with the Basin Plan. These are termed ‘interim water resource plans’<sup>69</sup>. Again, they are only considered interim water resource plans under the Act to the extent that they deal with the matters listed in s. 22(1) (the mandatory content of the Basin Plan).<sup>70</sup> Interim plans cease to apply at the end of 2014 or five years after they are made, whichever is later.<sup>71</sup>

Both transitional and interim water resource plans have a unique status and should be considered distinct from water resource plans developed after the commencement of the Basin Plan.

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<sup>63</sup> Section 56(2) of the Act.

<sup>64</sup> Section 4 of the Act—definition of ‘water resource plan’.

<sup>65</sup> These are listed in Schedule 4 of the Act, along with the dates on which the plans cease to have effect. Transitional water resource plans—for example, those from Victoria—can also be prescribed through regulations.

<sup>66</sup> Where specific trading rules are contained in instruments created under a **transitional** water resource plan (e.g. in a ‘resource operations plan’ made under a Queensland ‘water resources plan’), these too are included, through s. 241(1). However, there is no such express inclusion in relation to instruments made under an **interim** water resource plan.

<sup>67</sup> Section 243 of the Act.

<sup>68</sup> Section 241(2) of the Act.

<sup>69</sup> Section 244 of the Act.

<sup>70</sup> Section 242(1) of the Act.

<sup>71</sup> Section 242(3) of the Act.

Amendments to transitional and/or interim water resource plans proposed by a Basin state must be accredited by the minister if the minister is satisfied that the amendment would make the plan 'no less consistent' with the Basin Plan.<sup>72</sup>

The interaction between water trading rules in the Basin Plan and those in interim or transitional water resource plans is set out in section 3.4.1.

### **3.4 Application of the Basin Plan water trading rules**

It is proposed that the Basin Plan, including its water trading rules component, will commence in 2011.<sup>73</sup>

Sections 34 and 35 of the Act require certain parties to act consistently with, and give effect to, the Basin Plan.

The Act states that the MDBA and any other agency of the Commonwealth, must 'perform their functions, and exercise their powers, consistently with, and in a manner that gives effect to, the Basin Plan'.<sup>74</sup> The Act also states that the Basin Officials Committee<sup>75</sup>, an agency of a Basin state, an operating authority<sup>76</sup>, an infrastructure operator or the holder of a water access right must not:

- (a) do an act in relation to water resources of a water resource plan area if the act is inconsistent with the water resource plan for the area; or
- (b) fail to do an act in relation to water resources of a water resource plan area if the failure to do that act is inconsistent with the water resource plan for the area.<sup>77</sup>

The same obligations are imposed on the same parties in relation to water resource plans.<sup>78</sup>

Sections 34 and 35 are the primary mechanism through which Basin Plan water trading rules will be enforced. Regulations may also be made under s. 256 of the Act prescribing matters necessary to carry out or give effect to the Act. This may include regulations made in relation to Basin Plan water trading rules.

Section 3.5 describes the specific mechanisms for enforcing the Basin Plan and its trading rules.

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<sup>72</sup> Section 246 of the Act. Note, the amendments will be assessed against the current rather than the 'relevant' Basin Plan.

<sup>73</sup> MDBA, viewed 15 February 2009, [www.mdba.gov.au/basin\\_plan](http://www.mdba.gov.au/basin_plan).

<sup>74</sup> Section 34 of the Act.

<sup>75</sup> The Basin Officials Committee is established by the MDB Agreement.

<sup>76</sup> The Act defines an operating authority as an agency of a Basin state or a person who has the function of managing a river-flow control work or a salinity work (whether the function is carried out by another person under a licence, contract or other arrangement with the person).

<sup>77</sup> Section 35 of the Act.

<sup>78</sup> Sections 58 and 59 of the Act.

### 3.4.1 Interaction with water trading rules in water resource plans

Basin states have recognised the primacy of the Basin Plan in relation to the matters it covers as provided for in the Act.<sup>79</sup>

Basin Plan water trading rules will operate concurrently with trading rules in water resource plans.

However, the Act provides for the continued application of transitional and interim water resource plans following the commencement of the Basin Plan. These plans are described in more detail in section 3.3.2.

In situations where trading rules in the Basin Plan and an interim or transitional water resource plan are inconsistent, it is the provision of the interim or transitional water resource plan that prevails.<sup>80</sup>

As such, any restrictions on, or barriers to, the trade or transfer of water resources that are set out in an interim or transitional water resource plan will be taken to be accredited by the minister and will prevail, even if they are inconsistent with the water trading rules incorporated into the Basin Plan.

### 3.4.2 Interaction with other water trading rules

When made, the Basin Plan (including its trading rules) will be a legislative instrument<sup>81</sup> and will, therefore, also be ‘Commonwealth water legislation’.<sup>82</sup>

As well as in water resource plans, water trading rules may also be found in the legislation and regulations of Basin states.

The Commonwealth water legislation is not intended to exclude or limit the concurrent operation of any law of a Basin state.<sup>83</sup> However, where there is a direct inconsistency between a provision of the Commonwealth water legislation (such as a water trading rule in the Basin Plan) and a provision of a law of a referring state<sup>84</sup>, the Commonwealth provision will generally prevail.<sup>85</sup>

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<sup>79</sup> COAG, *Agreement on Murray-Darling Basin Reform*, 3 July 2008, clause 3.2.1, viewed 14 January 2009, [www.coag.gov.au/coag\\_meeting\\_outcomes/2008-07-03/docs/Murray\\_Darling\\_IGA.rtf](http://www.coag.gov.au/coag_meeting_outcomes/2008-07-03/docs/Murray_Darling_IGA.rtf).

<sup>80</sup> Section 245(3) of the Act.

<sup>81</sup> Section 33(1)(a) of the Act.

<sup>82</sup> Section 250A of the Act.

<sup>83</sup> Section 250B(1) of the Act.

<sup>84</sup> As defined in s. 18B of the Act.

<sup>85</sup> Referring states are able to declare a provision of the state law to be a ‘Commonwealth water legislation displacement provision’. If this is the case, trading rules under the Basin Plan that seek to prohibit certain trades, or to prohibit restrictions on other types of trades, will have no effect if the state provision ‘specifically permits, authorises or requires’ these trades or restrictions on these other types of trades. In other cases where a declaration has been made by a referring state, the Commonwealth provision does not operate to the extent necessary to ensure that no inconsistency arises (see s. 250D).

Similarly, referring states are also able to declare aspects of the Commonwealth water legislation

Regulations can also be made (by the Commonwealth) to modify the operation of the Commonwealth water legislation to exclude specified matters or remove inconsistencies with state laws.<sup>86</sup>

Rules relating to the trade or transfer of tradeable water rights (including irrigation rights and delivery rights) may also be found in the processes and procedures of infrastructure operators. Infrastructure operators are, however, required to act consistently with, and give effect to the Basin Plan.

### 3.5 Enforcement of the Basin Plan water trading rules

When made, the Basin Plan water trading rules will be enforced by the MDBA by<sup>87</sup>:

- applying to a Court<sup>88</sup> for an **injunction** where a person has engaged, is engaging or is proposing to engage in conduct that would constitute a contravention.<sup>89</sup>
- applying to a Court for **declarations** that a person has committed a contravention<sup>90</sup>
- accepting an **undertaking** which can be enforced through a Court, where the appropriate enforcement agency considers conduct constituted a contravention.<sup>91</sup>

The MDBA may also issue an **enforcement notice** where it is satisfied that a person has contravened, is contravening or is likely to contravene the Basin Plan.

Enforcement notices may also be given where the MDBA is satisfied that a person has, will or is likely to engage in conduct (or omit to perform an act) that was, is or would:

- be inconsistent with the Basin Plan or a water resource plan

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(which could include water trading rule matters) as ‘excluded matters’ for which the federal legislation would not apply (see s. 250C).

In both situations, however, the Commonwealth can regulate to set aside such a declaration by a referring state (see ss. 250C(3) and 250D(6)).

<sup>86</sup> Section 250 E of the Act.

<sup>87</sup> Sections 136 and 137 of the Act. The Act designates the MDBA as the ‘appropriate enforcement agency’ for contraventions of provisions of Part 2 (which includes ss. 34 and 35) or regulations made for the purposes of Part 2.

<sup>88</sup> ‘Court’ is defined as the Federal Court of Australia, the Federal Magistrates Court (except for proceedings against a State) or a ‘court of a State or Territory that has jurisdiction in relation to matters arising under this Act’ (see ss. 138 and 139 of the Act).

<sup>89</sup> Under ss. 140 to 143 of the Act, injunctions can:

- be **prohibitory** (restraining a person from engaging in such conduct) in which case the court can also order that the person do something (e.g. repair damage to Basin water resources)
- be **mandatory** (requiring a person to do something where failure to do this thing would be a contravention)
- require the implementation of a program for compliance with the *Water Act 2007*, the regulations, the water charge rules or the water market rules
- disclose information to correct or counter the effect of a contravention
- require corrective advertising to correct or counter the effect of a contravention.

The court may grant an **interim injunction** before deciding on an application for any of the above injunctions restraining a person from engaging in conduct, or requiring a person to do an act or thing.

<sup>90</sup> Sections 144 and 145 of the Act.

<sup>91</sup> See s. 163 of the Act—note, there is no requirement to keep a public register of these undertakings, although the undertaking may be published on the MDBA website, [www.mdba.gov.au](http://www.mdba.gov.au).

- prejudice the effectiveness of the implementation of the Basin Plan or a water resource plan
- have an adverse effect on the effectiveness of the implementation of the Basin Plan or a water resource plan.<sup>92</sup>

The MDBA may, through the enforcement notice, direct a person to take action for the purposes of ensuring the conduct or omission of the kind giving rise to the enforcement notice is not repeated in the future.<sup>93</sup> The MDBA may also direct a person to remedy any adverse consequences of the conduct or omission on the health or availability of Basin water resources, including through a direction to a person not to exercise their water access right, irrigation right or delivery right.<sup>94</sup>

If a person fails to comply with an enforcement notice, there is a civil penalty of 600 penalty units.<sup>95</sup> A penalty unit is currently \$110, which equates to a maximum pecuniary penalty of \$66 000 for individuals and otherwise \$330 000.<sup>96</sup> To enforce this civil penalty, the MDBA would be required to apply to a Court for an order to pay a **pecuniary penalty**.<sup>97</sup>

Water trading rules can provide that a person who suffers loss or damage as a result of a contravention of the rules may recover this amount by an action against the person contravening the rules or involved in the contravention.<sup>98</sup>

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<sup>92</sup> Section 165 of the Act.

<sup>93</sup> Section 165(2) of the Act.

<sup>94</sup> Section 165(3) of the Act. For example, where a person has acted inconsistently with a water resource plan by extracting more water than they are entitled to, the MDBA may direct them to not extract or sell an equivalent amount of water in a subsequent season, which they would otherwise be entitled to.

<sup>95</sup> Section 166 of the Act.

<sup>96</sup> Through the operation of s. 147(3) of the Act.

<sup>97</sup> Note that such pecuniary penalty orders **cannot** be sought in relation to ‘Ministers, officers/employees of the Crown and Commonwealth or State agencies’—see ss. 147(note) and 12 of the Act. Section 4 of the Act contains an expansive definition for an agency of a state and/or the Commonwealth. All entities included in the s. 4 definition are shielded from pecuniary penalty orders, with the exception of:

- a company in which the state/Commonwealth (or a state/Commonwealth body corporate) has a controlling interest
- a body established or appointed for a public purpose by or under a law of a State (including local government) which operates primarily on a commercial basis.

<sup>98</sup> Section 26(5) of the Act.

## 4 Water market and trading objectives

The Basin Plan water trading rules must contribute to achieving the Basin water market and trading objectives and principles. This chapter discusses these objectives in more detail.

### 4.1 Facilitate efficient water markets

An efficient, well functioning water market can reveal the value of water to existing and potential users. Water trade creates incentives for users to seek improved technical productivity, innovate and improve water use efficiency. This leads to more productive and efficient use of water resources over time.<sup>99</sup>

Barriers to water trade can result in a thinner market than might otherwise exist, distort the decisions of market participants, dampen signals for necessary investment and long-term structural adjustment and result in a reduction in the gains from trade (that may otherwise have been realised).

Among other things efficient markets are characterised by:

- a multitude of buyers and sellers
- well informed decision making on the part of market participants
- market participants taking account of all the costs and benefits generated by their actions (i.e. any externalities are internalised)
- low barriers to entry
- low transaction costs
- few impediments to trade
- well defined property rights.

These characteristics help to ensure that any opportunities for beneficial trades are fully realised, thereby facilitating the optimal allocation of resources. Facilitating the operation of efficient water markets involves ensuring that elements that characterise efficient markets are present.

### 4.2 Minimise transaction costs

High transaction costs can act as an impediment to a well functioning water market by discouraging otherwise beneficial trades from occurring.

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<sup>99</sup> NWC, *2005 National Competition Policy: follow up assessment of water reform progress*, pp. 1 and 2, May 2007, viewed 14 January 2009, [www.nwc.gov.au/resources/documents/2005-NCP-followup-water-trading-MDB-0907.pdf](http://www.nwc.gov.au/resources/documents/2005-NCP-followup-water-trading-MDB-0907.pdf).

Some typical transaction costs in water markets include costs associated with obtaining market information, seeking and obtaining transformation and/or trade approval, and negotiating and enforcing contracts.

It is important that market participants have timely and relevant information on prices, availability of water and market processes. Where the cost of obtaining such information is excessive, the efficient operation of the market can be hindered.

However, to encourage appropriate market behaviour and limit market failures, it may be necessary to impose transaction costs on market participants. These may relate to costs associated with the implementation and operation of trade approval processes and water accounting systems. While these processes may be necessary and even desirable features of the market's operation, these mechanisms should be designed to minimise the costs of implementation, to minimise any associated transaction costs.

Institutional features of the market's design may also reduce transaction costs. For example, an adequate and accessible register of titles and record of transfers helps to reduce transaction costs by facilitating the enforcement of property rights and by informing market participants.

### **4.3 Enable a mix of water products to develop**

An increase in the choice of water products available can deepen the water market by generating more buyers and sellers; it can also provide increased flexibility to water users. Water products could include water access entitlements, water allocations, leases and option contracts.<sup>100</sup>

For example, given the variability in water availability in Australia and that some irrigators need long-term access to secure supplies of water because of their cropping choices, these irrigators may wish to own higher reliability water entitlements. Some irrigators with annual crops may prefer to trade allocations, taking advantage of times when water is less expensive and more readily available. Other irrigators may wish to hold a portfolio of water entitlements from different connected water systems, to diversify the risks associated with low water availability in any one area.

### **4.4 Recognise and protect the needs of the environment**

Where environmental externalities are present, water markets may not result in the most efficient outcomes. Externalities occur where a market decision by one party imposes costs or benefits on another party that are not reflected in the market price.

Water provided for the environment is a public good.<sup>101</sup> As a result, the benefits generated cannot be confined to those willing to pay for its provision, which can lead to

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<sup>100</sup> An options contract is a contract that gives the right but not the obligation to purchase or sell a product at a specified price within a period of time.

<sup>101</sup> A good that is non-rival and non-excludable, such as the consumption of the good by one individual, does not reduce the amount of the good available for consumption by others, and the benefits generated from the good cannot be confined to those willing to pay for the provision of the good.

the under-provision of water for the environment (i.e. too much water is allocated to consumptive uses and too little to the environment).

To increase the efficiency of water markets, these issues (associated with externalities and the public good characteristics of water) need to be addressed. A possible solution is for trading to be restricted where it may result in negative environmental outcomes, or for governments to secure and manage water access entitlements for environmental purposes. Alternatively, it may be possible for property right regimes to be specified more precisely to manage these externalities.

#### **4.5 Provide appropriate protection of third parties**

While water trading can increase net social benefits, parties within irrigation communities may be negatively affected. For example, irrigation networks typically involve large initial capital outlays and predominantly fixed recurrent operating and maintenance costs. For the most part these costs are common to all network users. As a result, when an irrigator reduces their use of the network (possibly in association with the trade of their water right), there may be little, if any, avoided cost from the perspective of the operator and therefore these fixed common costs must be shared by the remaining network users.

Where a trade or transfer of a water access right changes the location of extraction, existing right-holders may experience a reduction (or increase) in the reliability of their right.

Water trading can also lead to structural adjustments such as contraction in the demand for complementary agricultural services and output from districts. This may result in changes to the demographics and population of some communities.

A range of tools and policies can be used to provide appropriate protection of third party interests.

## 5 Water access rights—rules relating to ownership

Trades or transfers of water access rights<sup>102</sup> can involve changes in ownership, location and/or other conditions. This chapter considers issues relating to ownership of water access rights.

This chapter deals with issues relating to water access right trades or transfers that involve:

- a change in ownership
- a lease of the water access right (sometimes referred to as a ‘term transfer’)
- subdivision or amalgamation

but do **not** entail a change in the location or other characteristics of the water access right (these are considered in the following two chapters).

Such trades and transfers occur when, for instance, water access rights are sold together with real property; they are usually subject to requirements to obtain the approval of parties with an interest in the water access right.

Where a water access right is jointly held, the agreement of all, or a majority of, right-holders will normally be required.

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Question 5–A Are there situations where a requirement for co-holder approval for a subdivision of a water access right should not apply?

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Some restrictions may be in place to address concerns about the ownership of water by non-landholders. In particular there are concerns about potential water-hoarding or speculation by non-landholders.

For example, there is a limit on the proportion of Victorian water shares in a system that can be owned without being associated with a water use licence or registration in that system (commonly known as the 10 per cent non-water user limit or the 10 per cent rule).<sup>103</sup>

Such rules can prevent wider participation in the water market and potentially the development by intermediaries of more innovative water-related products, such as water futures and options, to assist water users to hedge against seasonal risk and price uncertainty.<sup>104</sup> The rules will also hinder the ability of environmental water-holders to purchase water access rights.

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<sup>102</sup> For an explanation of what is meant by ‘tradeable water rights’, see section 3.1.2 of this paper.

<sup>103</sup> See the Victorian Water Register website, viewed on 16 February 2009, [www.waterregister.vic.gov.au/Public/Reports/NonWaterUseLimit.aspx](http://www.waterregister.vic.gov.au/Public/Reports/NonWaterUseLimit.aspx).

<sup>104</sup> The Allen Consulting Group, *Improving market confidence in water intermediaries*, Waterlines Occasional Paper No. 3, commissioned by the National Water Commission, Canberra, 2007, p. 26,

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Question 5–B Should the ownership of water access rights be restricted for any particular individuals? If so, on what basis?

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Other restrictions relating to water use approvals and the purpose that water will be used for are discussed in section 7.2.

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viewed on 12 January 2009, [www.nwc.gov.au/resources/documents/improving-market-confidence-water-intermed-body-Waterlines-0707.pdf](http://www.nwc.gov.au/resources/documents/improving-market-confidence-water-intermed-body-Waterlines-0707.pdf).

## 6 Water access rights—rules relating to location

Trades and transfers of water access rights<sup>105</sup> often involve changes in the location of extraction. This chapter outlines the storage and delivery issues relevant to such changes, before considering particular kinds of location changes.

### 6.1 Storage and delivery issues

Water systems can be classified with reference to what type of water resource it is and the level of control that operators have over flows.

**Regulated systems** are characterised by structures such as dams and weirs on a major river, which can be used to store and control water levels and flows, thereby increasing the reliability<sup>106</sup> of supply. Storage sizes tend to be larger in regulated systems in the southern part of the MDB compared to regulated systems in northern New South Wales and Queensland.<sup>107</sup> Water access rights in these systems generally take the form of water access entitlements and water allocations. Once made, water allocations usually take the form of a credit in a water allocation account and can be used at any time, subject only to ordering requirements and delivery constraints.

**Unregulated systems**, on the other hand, have few or no structures in place to ‘regulate’ the flow of water—water availability varies over time and an unregulated river or stream may not flow at all some, or most, of the time. Water access rights in these systems are less dependable than those in regulated systems. The ability to access water depends on there being sufficient water available at the point of extraction (over and above any minimum, or passing, flow requirements that may apply), which is in turn affected by the extraction of water by other right-holders upstream.

Groundwater systems share many of the characteristics of unregulated (surface water) systems, in that access to water can be directly influenced by the actions of other right-holders. If water is being extracted from the system at a sustainable rate, however, ground water systems can be more reliable than many unregulated surface water systems.

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<sup>105</sup> For an explanation of what is meant by ‘tradeable water rights’, see section 3.1.2 of this paper.

<sup>106</sup> According to the National Water Initiative (NWI), the term ‘reliability’ refers to the ‘frequency with which water allocated under a water access entitlement is able to be supplied in full’. The term can also be used to describe the priority that a water access entitlement has (over other water access rights) in a regulated system.

<sup>107</sup> Regulated systems are referred to as ‘supplemented’ systems in Queensland where there is a relatively higher reliance on inflows into the system (compared with water held in storages).

As a general principle, trades and transfers that change the location of a water access right should be permitted where water resources are shared or hydrologic connections and water supply considerations would allow it.<sup>108</sup>

Consistent with this principle, trades and transfers of tradeable water rights to a different location are generally prohibited where it is not possible to deliver the water to the new location. These restrictions may differ for water allocations as delivery of the water need only be possible at that time (compared to ‘permanent’ trades and transfers of other water access rights, where an ability to deliver on an ongoing basis is required).

Delivery considerations arise through physical constraints because river channels, irrigation canals and pipelines have limited carrying capacity, meaning that at certain times in the irrigation season, when demand is high, it may not be physically possible to supply water resulting from trade to some areas. For example, the most significant river channel constraint on the River Murray is Barmah Choke.<sup>109</sup> Physical constraints can also be present when there is insufficient water in a watercourse to enable delivery without prohibitive conveyance losses.

Other delivery considerations may take the form of limits imposed to ensure that the needs of the environment are protected.

Over time, delivery considerations may fluctuate—for example, a drier climate can lead to more frequent physical constraints and also may lead to environmental limits applying more frequently.

Delivery considerations are generally ‘hard-wired’ in to water trading rules and the feasibility of delivery can be assumed if a trade/transfer is approved.<sup>110</sup>

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Question 6–A What improvements (if any) could be made to the way in which:

- (a) physical constraints
- (b) environmental limits

are incorporated into water trading rules?

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Both surface water systems (regulated and unregulated) and groundwater systems can also be divided into trading zones to simplify the administration of water access right trades and transfers. Trading zones reflect known water resource or management arrangements and the physical realities of the systems. The size and number of trading zones can vary considerably throughout the MDB.

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<sup>108</sup> For example, see Principle 2 of the Basin water market and trading objectives (Schedule 3 of the Act).

<sup>109</sup> MDBC, *Trading rules*, ‘Interstate water trade’ series, factsheet 7 (May 2006), viewed 14 January 2009, [www.mdbc.gov.au/\\_data/page/114/MDB3614\\_Fact\\_Sheet\\_7.pdf](http://www.mdbc.gov.au/_data/page/114/MDB3614_Fact_Sheet_7.pdf).

<sup>110</sup> Where a water delivery right (a type of tradeable water right discussed in chapter 8 of this paper) takes the form of an explicit licence or entitlement, it generally applies only to the delivery of water in a confined irrigation network or district rather than delivery between water resources.

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Question 6–B On what basis are water trading zones defined? Are there examples of where trading zones have been set too narrowly? Too broadly?

Question 6–C What scope is there to introduce trading zones where there are none already in place?

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### 6.1.1 Carryover

Most regulated systems in the MDB operate on an announced allocation system, where water allocations are made against water access entitlements on a periodic basis and up to a nominal volume.<sup>111</sup> For example, with a water access entitlement of 100 ML, an announced allocation of 30 per cent would mean that 30 ML of water allocation would be available for use.

In most of these systems, water allocations unused at the end of an irrigation season can be carried over in storage for use in the next season, subject to conditions set by the infrastructure operator or the Basin state. In some cases, a person's ability to access carryover may be limited where they have traded or transferred water access rights.

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Question 6–D What restrictions (if any) relating to carryover should apply to the trade/transfer of water access rights?

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### 6.1.2 Conveyance losses

The ACCC has recently considered the issue of conveyance (distribution) losses within irrigation networks.<sup>112</sup>

Conveyance losses (losses arising from the delivery of water within and between systems, primarily through evaporation and seepage) are generally not accounted for in any systematic way throughout the Basin.<sup>113</sup> When a trade/transfer occurs between (connected) water systems, generally no adjustment is made to the traded volume to reflect conveyance losses.

Calculating the volume of conveyance loss for any one trade/transfer is highly problematic; however, it may be possible to arrive at average conveyance losses between two areas. Even then, there may be difficulties in allowing for climatic conditions, the current level of the river and in isolating conveyance losses arising from the trade/transfer (from conveyance losses that would occur without the trade/transfer).

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<sup>111</sup> Two regulated systems in Queensland (the St George and Macintyre-Brook water supply schemes) operate under a 'continuous sharing' scheme where the water access entitlement is an entitlement to the share of inflows in the system. The amount of water allocation available is increased with inflows, but decreases with usage and to account for losses (e.g. from evaporation).

<sup>112</sup> ACCC, *Water market rules—ACCC advice to the Minister for Climate Change and Water*, pp. 40–55, available at the Department of the Environment, Water, Heritage and the Arts, viewed 24 February 2009, [www.environment.gov.au/water/action/market-charge-rules.html](http://www.environment.gov.au/water/action/market-charge-rules.html).

<sup>113</sup> Queensland water supply schemes adjust account balances to reflect conveyance losses in some cases. Elsewhere conveyance losses may be factored into operational decisions by operating authorities.

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Question 6–E What are the advantages and disadvantages of imposing an adjustment for conveyance losses on the trade / transfer of a water access right? How should the adjustment be calculated?

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## 6.2 Trade/transfer between Basin states

The Act states that the water trading rules must include rules for the trading or transfer of tradeable water rights between Basin states. Where interstate trades and transfers do occur, they are currently governed by agreements between Basin states.<sup>114</sup>

For example, the MDB Agreement establishes rules for trade in the southern connected systems of Victoria, New South Wales and South Australia (although not for trades and transfers between the Australian Capital Territory and New South Wales).

Trades and transfers between New South Wales and Queensland operate on a very limited basis at present, but the scope for such trades will increase (in the Border Rivers area in particular) as the necessary institutional arrangements are developed.

Interstate changes in the location of water access entitlements are now implemented through a ‘tagging’ system (see box 6.1).

### Box 6.1—Tagging and exchange rates

#### Tagging

Tagging is an accounting approach where the water access entitlement retains its original characteristics (and remains on the same register) but is ‘tagged’ for extraction and/or use in another trading zone.

Water allocations made to the water access entitlement are made by reference to conditions in the original location of the entitlement (rather than its destination). For example, a water access entitlement in system A can be tagged for use in system B. The amount of water allocated to the water access entitlement is determined with reference to the amount of water available in system A, not system B. As such, a water user in system B can access water from both system A and B.

Tagging enables a person to hold a portfolio of water access rights from a range of connected systems, each with their own reliability characteristics. This reduces their risk of a zero or low allocation, as they can access water from systems with higher allocation levels. While the same result can be achieved without tagging through direct water allocation trades/transfers, tagging is not dependent on gaining approval for repeated applications for trade/transfer approvals.

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<sup>114</sup> There were no trades or transfers between the Australian Capital Territory and any other Basin state in 2007–08. The MDBA is currently undertaking a process that would allow interstate trade with the Australian Capital Territory.

Under current tagging arrangements for interstate trade, water allocations remain in an account in the area of origin until ordered (this is system A in the above example). Ordering is done through the retailer in the area of destination (i.e. in the trading zone where the entitlement is tagged for use, system B in the above example). The retailer must confirm that the balance is available in the area of origin with the relevant retailer.

### **Exchange rates**

Exchange rate trades differ from tagging in several ways. They involve the cancellation of the water access right in source area and the creation of a new water access right in the destination area, with the same characteristics of other water access rights in the destination area.

Differences in the reliability of water access rights between the source and destination areas are accounted for by adjusting the nominal volume of the water access right in question using an exchange rate. For example, a trade/transfer from a relatively low-reliability area to a relatively high-reliability area would suggest that an exchange rate of less than one should apply.

However, where water availability in a given water season diverges from the long-term averages in the source and/or destination area, it can negatively affect the third-party rights of existing rights-holders and the environment. For example, when the area of origin has lower allocations than the area of destination, water users in the area of destination will get the third party impacts because the storage from where the water will be supplied (in the area of origin) can supply only what water is held in its storage and the area of destination will have to make up the difference (which will negatively affect water users' allocations in the area of destination).

The magnitude and direction of third party impacts will vary with the relative water availability, the exchange rate used and the volume of exchange rate trades that have occurred.

Approval processes in relation to interstate trades/transfers are considered in chapter 10.

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Question 6–F Are there any concerns with the arrangements for the trade/transfer of water allocations ('temporary' trade) between Basin states?

Question 6–G How could tagging arrangements for 'permanent' trade be improved?

Question 6–H Are there areas where the opportunity to trade/transfer water access rights between Basin states could be expanded? What measures would be necessary for this to occur?

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## 6.3 Trade/transfer between water systems

### 6.3.1 Between regulated systems

Trade/transfer of water access rights (usually water access entitlements) between regulated systems is generally permitted where hydrologic connections and supply considerations permit. For instance, regulated systems in the southern MDB are highly connected with the River Murray, while only two regulated systems in the Queensland MDB are physically connected.

Water access entitlement trades/transfers between regulated systems **within** Basin states are also given effect through tagging arrangements (as set out in section 6.2), although administrative details differ. For instance, charges and ordering arrangements may not differ between the water access entitlement's source and destination areas.

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Question 6–I Are there any concerns with the arrangements for the trade/transfer of water allocations ('temporary' trade) between regulated water systems within Basin states?

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### 6.3.2 Between unregulated systems

Unregulated systems usually do not share a direct hydrologic connection, in which case the trade/transfer would involve the extinguishment of the original water access right and the creation of a new water access right at the destination. Even where two unregulated systems are connected, a trade may only be feasible through this mechanism (see box 6.2). In both cases, the same disadvantages associated with exchange rate trades would apply (see section 6.2).

#### **Box 6.2—trades/transfers from unregulated systems**

By definition, water access rights in unregulated systems cannot include an exclusive right to a water allocation held in storage. As such, water not extracted by one person may be extracted by someone else downstream, or otherwise flow out of the system.

To ensure the delivery of water traded and/or transferred out of an unregulated system, end-of-system flow requirements would need to be binding and adjusted upwards to reflect the traded volume. Furthermore, there would need to be a mechanism at the destination to ensure that the additional water was made available only to the intended recipient.<sup>115</sup>

As these arrangements are typically not in place, changes in location between unregulated systems would not be very difficult, or impossible, to account for a tagged trade/transfer.

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<sup>115</sup> An approach along these lines has been proposed by Professor Mike Young and dubbed 'shepherding'. See M. Young, *Water Droplet 15*, 'Shepherding water: Unregulated water allocation and management', 1 February 2009, viewed 16 February 2009, [www.myoung.net.au/water/droplets/Droplet\\_15\\_Shepherding\\_water.doc](http://www.myoung.net.au/water/droplets/Droplet_15_Shepherding_water.doc).

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Question 6–J Should trades/transfers between unregulated systems be permitted?  
If so, what measures could be taken to ensure that water reaches its intended recipient?

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### 6.3.3 Between regulated and unregulated systems

Trade/transfer between regulated and unregulated systems is not generally permitted.<sup>116</sup> Given the significant differences between regulated and unregulated systems, particularly relating to reliability, such trades/transfers are likely to have negative third party impacts (including on the environment).

An exception may be the trade/transfer of a specific volume of water (allocation), to the extent that the specific volume of water could be accounted for through to its destination.

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Question 6–K What are the advantages and disadvantages of permitting the trade/transfer of a water allocation:

- (a) from a regulated system to a (connected) unregulated system?
- (b) from an unregulated system to a (connected) regulated system?

Do these factors differ depending on which system is upstream?  
What arrangements would be necessary to facilitate these trades/transfers?

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### 6.3.4 Between ground water and surface water

Ground water and surface water are often connected, sometimes to the point where they are managed as a single water source. The degree of connectivity, and the direction in which water moves both vary, from area to area.<sup>117</sup> These relationships may not be well understood.

Where ground and surface water systems are connected, extraction from own system can impact on water availability in the other. The full magnitude of these effects can take many years or even decades to present themselves.

Possibly for this reason, trades or transfers between ground and surface water systems do not appear to be permitted in the MDB.<sup>118</sup>

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<sup>116</sup> Victoria allows the conversion of water shares (entitlements) from regulated systems into ‘winter-fill’ licences (i.e. a take-and-use licence to divert water into or harvest water in a private dam from May to October. Such a trade/transfer is undertaken using an exchange rate of 1.19.

<sup>117</sup> See, for example, the Commonwealth Scientific and Industrial Research Organisation, *Water availability in the Murray-Darling Basin*, October 2008, p. 19, viewed 14 January 2009, [www.csiro.au/resources/WaterAvailabilityInMurray-DarlingBasinMDBSY.html](http://www.csiro.au/resources/WaterAvailabilityInMurray-DarlingBasinMDBSY.html).

<sup>118</sup> It is worth noting that where a person wishes to trade/transfer between ground water and surface water systems, they can do this indirectly by selling their current water access right and purchasing another water access right in their desired system.

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Question 6–L Under what circumstances should a trade/transfer between a ground water system and a surface water system be permitted?

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## 6.4 Trade/transfer within a water system

### 6.4.1 Within a regulated system

Both ‘permanent’ (water access entitlement) and ‘temporary’ (water allocation) trades/transfers within a regulated system are relatively straightforward. They account for the majority of all trades/transfers in the MDB.

They require very little assessment and usually no immediate movement of physical water.<sup>119</sup> As a result, they can often be approved automatically. Where the trade/transfer would move a water access right (or its point of extraction and/or use) between trading zones within the regulated system, some restrictions may be imposed to account for delivery considerations.<sup>120</sup>

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Question 6–M Are there any issues of concern about changes in the location of water access rights within a regulated system?

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### 6.4.2 Within an unregulated system

Trade within an unregulated system is largely driven by the physical aspects of the system. Where a trade/transfer involves a change in the location of a water access right in an unregulated system, there is a potential for third party impacts (including on the environment), as water access rights are more ‘opportunistic’ and water availability is more variable in unregulated systems.

As a generalisation, moving a water access licence upstream can negatively affect those downstream of the new location, as the newly located water access right will, in effect, have a higher priority. It will also mean that there is less water in the river between the new location and the old. Of course, if the change in location is reversed (the location moves downstream), so are the likely impacts.

Assessing the potential for these impacts requires modelling of the water resource in question. In many unregulated systems, an adjustment is made to the nominal volume of the water access right being traded/transferred. Also, the conditions governing when water can be extracted may also be amended.

Trading rules may simplify the application of these principles through the use of zones, where the trade/transfer of a water access right is prohibited or permitted only if the resulting total volume of water access rights in that zone is within set parameters (usually established in the relevant water resource plan).

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<sup>119</sup> Assuming the new location is served by the same storage(s).

<sup>120</sup> For example, trades/transfers within the regulated River Murray are influenced by the upper limit of water that can travel through the Barmah Choke (upstream of Echuca). As such, the Choke is at the border of the two relevant trading zones and trades/transfers from above to below the Choke are restricted.

A trade/transfer of a specific volume of water (allocation) will only be feasible to the extent that the water can be ‘quarantined’ from other water access right-holders while it is en route to its destination (see section 6.3.2)

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Question 6–N Are current arrangements sufficient to limit potential third party impacts from trades/transfers that change the location of a water access right within an unregulated system?

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### 6.4.3 Within a ground water system

The trade/transfer of water access rights for groundwater systems is usually subject to restrictions to ensure that third parties are not negatively affected by any new or increased extraction rates or volumes that would result.<sup>121</sup>

As with trade within unregulated surface water systems, assessing the potential for these impacts requires modelling of the ground water system in question. Trading rules may simplify the application of these principles through the use of zones, where the trade/transfer of a water access right is prohibited or permitted only if the resulting total volume of water access rights in that zone is below a set limit.

Where the ground water system is less well understood, there may be more significant limitations on trades/transfers or they may be prohibited all together.

If a ground water system is highly connected to an overlaying surface water system, rules may be in place to prevent additional ground water usage that would reduce surface water flows (e.g. by prohibiting changes in location to within a certain distance of a river or stream).<sup>122</sup>

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Question 6–O Are third party impacts adequately addressed in relation to changes in location within ground water systems?

Question 6–P How could the trade/transfer of ground water access rights be made more efficient?

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## 6.5 Trade outside the MDB

The Basin Plan’s water trading rules must relate to tradeable water rights relating to Basin water resources. As a result, the rules cannot relate the trade/transfer of non-Basin water resources into the MDB, but they can deal with the trade/transfer of Basin resources out of the MDB.

Practically, water would not be deliverable to outside the MDB through natural water courses, but would instead rely on pumping.

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<sup>121</sup> These impacts could take the form of the depletion of the ground water resource (thereby negatively affecting all other holders of water access rights) or through localised drawdown of the ground water resource, where nearby extraction works (e.g. bores) lose access or face higher costs to access water.

<sup>122</sup> See also section 6.3.4 of this paper for a discussion about trade between ground and surface water.

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Question 6–Q Should there be any specific rules imposed relating to the trade/transfer of water access rights to locations outside of the MDB? On what basis should these be imposed?

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## 7 Water access rights—rules relating to other matters

Trades and transfers of water access rights<sup>123</sup> may be subject to requirements other than those relating to ownership or location. Issues associated with these rules are considered in this chapter.

### 7.1 Conversion between priority classes

Different classes of water access rights may relate to the one water system. This is particularly the case with water access entitlements in regulated systems, where the amount of water allocated to the water access entitlement is determined by the priority class of the water access entitlement.

For instance, in New South Wales a water access licence can fall into one of a number of categories, including ‘Regulated River (High Security)’ and ‘Regulated River (General Security)’. Generally speaking, holders of a High Security water access licence will receive most or all of their water allocation before holders of General Security water access licences have any water allocated to their licence.<sup>124</sup>

In some jurisdictions, the holder of a water access right of a particular priority class may apply to change it to a different priority class.<sup>125</sup> This usually involves an exchange rate (or conversion factor) and is therefore open to the same criticisms as exchange rates in the context of changes in location (see 6.2).

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Question 7–A What are the advantages and disadvantages of allowing a change in the priority class of a water access right?

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### 7.2 The purpose or use of water

#### 7.2.1 Restrictions relating to the purpose of a water access right

In some jurisdictions, water access rights are linked to a specific purpose, such as the category or sub-category of a New South Wales water access licence<sup>126</sup>, or the ‘purpose’ of a Queensland allocation.

One such purpose may be water for urban water supply, which is generally of the highest priority and may not be tradeable under certain conditions or at all.

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<sup>123</sup> For an explanation of what is meant by ‘tradeable water rights’, see section 3.1.2 of this paper.

<sup>124</sup> See also sections 6.1.1 and 11.4.1 of this paper.

<sup>125</sup> The New South Wales Government has embargoed such conversions; see Department of Water and Energy (New South Wales), viewed 16 February 2009, [www.dwe.nsw.gov.au/water\\_trade/wma2000\\_dealings\\_location.shtml](http://www.dwe.nsw.gov.au/water_trade/wma2000_dealings_location.shtml).

<sup>126</sup> Different categories may also have different priorities—see section 7.1 of this paper.

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Question 7–B Does defining a specific purpose for a water access right create a barrier to trade?

Question 7–C Should there be any restrictions on the trade/transfer of water to urban areas within the MDB?

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Stock and domestic rights generally allow access to surface water or ground water (sometimes without requiring an explicit licence or a meter) as long as the water is used for (non-intensive) stock and/or domestic purposes.

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Question 7–D Should it be possible to trade/transfer stock and domestic rights? If so, what conditions should apply?

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### 7.2.2 Water held for the environment

Governments throughout the MDB are purchasing water access rights to be managed for environmental reasons.<sup>127</sup> These rights will be used to increase base flows and/or to target key sites of environmental significance.

Water access rights (including most of those held by environmental water-holders) are extractive rights and were designed primarily with irrigation in mind. As such, existing water trading rules may not enable an environmental water-holder to have water delivered to the locations, at the times and in the manner desirable to best achieve environmental objectives.

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Question 7–E To what extent, and how, should water trading rules provide for the needs of environmental water-holders?

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### 7.2.3 Requirements in relation to use approvals

In an unbundled system, the right to extract and/or access water is held separately from the right to use water on a particular piece of land or for a particular purpose. This allows water-holders to trade water rights separately from land and is critical to the development of water markets.

As such, it is arguable that the approval of a trade/transfer of a water access right should not be dependent on whether a corresponding water use approval is held or obtained.

For example, a trade/transfer of a water allocation in Victoria cannot be approved if it would result in the balance of the allocation bank account (ABA) exceeding 200 per cent of the nominal volume of water use approvals linked to the ABA.<sup>128</sup>

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<sup>127</sup> For a recent summary, see COAG, *Murray-Darling Basin environmental water recovery*, 29 November 2008, viewed 16 February 2009, [www.coag.gov.au/coag\\_meeting\\_outcomes/2008-11-29/docs/20081129\\_water\\_recovery\\_mdb.pdf](http://www.coag.gov.au/coag_meeting_outcomes/2008-11-29/docs/20081129_water_recovery_mdb.pdf).

<sup>128</sup> Rule 23 of *Trading rules for declared water systems* (made under the *Water Act 1989* (Vic)), prepared by the Victorian Department of Sustainability and Environment, available on Victorian

While removing water use-related restrictions on trade will undoubtedly simplify trading processes, care must be taken to ensure that adverse impacts from water use do not result. Therefore, the continued development of robust water use approval frameworks at the Basin state level is critical.

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Question 7–F What are the advantages and disadvantages of requiring the possession of a relevant water use approval as a condition of approving a trade/transfer?

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#### 7.2.4 Salinity and other environmental concerns

Restrictions, or prohibitions, may apply to the trade/transfer of a tradeable water right into a salinity affected area or to address other environmental concerns. Where these concerns arise because of the use of water on land, they can (and are) addressed through water use approvals.<sup>129</sup>

However, salinity and other environmental concerns can also arise because of trades and/or transfers of water access rights between locations, resulting in changes in the timing and level of river flows. These concerns are not directly addressed through water use approvals, but may be addressed in water trading rules.

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Question 7–G To what extent, and in what way, should water trading rules attempt to address:

- (a) salinity
- (b) other environmental issues

arising from changes in the timing and level of river flows (in contrast to the impacts of water use on land)?

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### 7.3 Volumetric limits on permanent trade out of an area

States and territories agreed under the National Water Initiative (NWI) to ‘remove barriers to permanent trade out of water irrigation areas<sup>130</sup> up to an annual threshold limit of 4 per cent of the total water entitlement of that area’.<sup>131</sup> This limit is commonly known as the ‘4 per cent rule’.

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Water Register site, viewed 17 February 2009,  
[www.waterregister.vic.gov.au/Public/RulesMaps.aspx](http://www.waterregister.vic.gov.au/Public/RulesMaps.aspx).

<sup>129</sup> For example, *Policies for managing water use licences in salinity impact zones*, see the Victorian Water Register website, viewed 16 February 2009,  
[www.waterregister.vic.gov.au/Public/documents/water\\_use\\_licences\\_in\\_salinity\\_impact\\_zone\\_policies.pdf](http://www.waterregister.vic.gov.au/Public/documents/water_use_licences_in_salinity_impact_zone_policies.pdf).

<sup>130</sup> The NWI defined a water irrigation area as ‘the area under control of an individual water service provider’ (e.g. an irrigation corporation, cooperative or trust, or a water authority).

<sup>131</sup> See: *Intergovernmental agreement on a national water initiative*, paragraphs 60 and 63, National Water Commission, viewed 12 January 2009,  
[www.nwc.gov.au/resources/documents/Intergovernmental-Agreement-on-a-national-water-initiative.pdf](http://www.nwc.gov.au/resources/documents/Intergovernmental-Agreement-on-a-national-water-initiative.pdf)NWI.

The NWI also contains provisions for the review of this annual threshold limit by 2009, with a view to raising the threshold (in the case of the southern MDB) or removing it altogether (in the rest of Australia). The commitment to review this rule has been reaffirmed by COAG, which has stated an ambition to raise the limit to 6 per cent by the end of 2009.<sup>132</sup>

Volumetric restrictions seek to address concerns regarding the rate of change in irrigation communities, but they also distort prices and the trading decisions of market participants, and can prevent water reaching its most valuable use.

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Question 7–H Are there other examples (besides the 4 per cent rule) of volumetric limits on the amount of water that can be traded/transferred out of particular areas?

Question 7–I What are the arguments for and against volumetric limits on the permanent trade of water access rights out of an area?

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## 7.4 Water access rights currently not tradeable

While all Basin states have unbundled their water rights to some degree, there may be water access rights within each Basin state that are not currently tradeable, or tradeable only to a limited extent.

Basin states have generally unbundled on a progressive basis, concentrating on the larger systems first, so the volume of water access rights on issue that can not be traded is relatively small. This proportion is also growing smaller as the Basin states progress their unbundling reforms.

A range of administrative measures (including verifying rights and recording them on registers) must be undertaken before water access rights can be made tradeable. Water modelling and planning is also generally required or at least desirable. These processes can be resource intensive; however, they do broaden the water market and provide holders with a more flexible and valuable water access right.

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Question 7–J Where water access rights are not currently tradeable, what are the advantages and disadvantages of requiring them to be made tradeable?

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<sup>132</sup> COAG, *Communiqué—3 July 2008 meeting*, viewed 16 February 2009, [www.coag.gov.au/coag\\_meeting\\_outcomes/2008-07-03/index.cfm](http://www.coag.gov.au/coag_meeting_outcomes/2008-07-03/index.cfm).

## 8 Water delivery rights

Water delivery rights can take a number of forms and may not be tradeable at present. This chapter considers the significance of impediments to the trade and transfer of water delivery rights.

According to the Act, the term ‘water delivery right means a right to have water delivered by an infrastructure operator’.<sup>133</sup> Water delivery rights exist:

- within the irrigation networks of irrigation infrastructure operators (IIOs)<sup>134</sup>
- more generally, in areas serviced by the water service infrastructure of an infrastructure operator.

Water delivery rights may take the form of:

- statutory rights, such as Victorian delivery shares (which are a right to delivery in an irrigation area)
- explicit delivery entitlements issued by an IIO (such as a Murray Irrigation Limited delivery entitlement)
- other contractual arrangement in place with an infrastructure operator.

The possession of water delivery rights is often the basis for determining liability for annual access fees for access to the water service infrastructure. Similarly, the termination of water delivery rights can trigger the payment of a termination fee.<sup>135</sup> In some cases, water delivery rights remain bundled with water access rights or irrigation rights (i.e. there is no separate explicit water delivery right). For example, a person may have a contractual relationship with an IIO that incorporates their entitlement to water under an irrigation right as well as their right to delivery against the IIO.<sup>136</sup>

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Question 8–A To what extent does the bundling of water delivery rights with either an irrigation right or a water access right present a barrier to, or restriction on, the trade/transfer of these rights?

Question 8–B What are the advantages and disadvantages of requiring more explicit separation of a water delivery right from an irrigation right or water access right where these are currently bundled?

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<sup>133</sup> Section 4 of the Act.

<sup>134</sup> For an explanation of ‘irrigation infrastructure operator’, see chapter 9 of this paper.

<sup>135</sup> Please see ACCC, *Water charge (termination fees) rules—final advice*, available at the Department of the Environment, Water, Heritage and the Arts, viewed 24 February 2009, [www.environment.gov.au/water/action/market-charge-rules.html](http://www.environment.gov.au/water/action/market-charge-rules.html).

<sup>136</sup> Another example could be where private diverters in a regulated system may not hold an explicit water delivery right, but instead their water access right implies a right to have water delivered from a storage through the river and/or creek they are located on.

## 8.1 Trade and transfer of water delivery rights

In some circumstances water delivery rights may be tradeable, subject to certain conditions. These conditions may include:

- restrictions on the parties that can purchase water delivery rights
- limitations on the areas within which water delivery rights may be traded
- requirements in relation to the volume of water entitlements that must be held
- other conditions.

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Question 8–C What conditions and restrictions on the trade/transfer of water delivery rights are reasonable?

Question 8–D What factors should govern the specification of areas within which water delivery rights may be traded/transferred?

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In other cases, the trade/transfer of water delivery rights may be prohibited altogether.

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Question 8–E What are the advantages and disadvantages of requiring the development of arrangements to allow for the trade/transfer of water delivery rights?

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See also section 6.1 for a discussion of storage and delivery issues as they relate to water access rights.

## 9 Irrigation rights

This chapter sets out issues associated with the trade and transfer of irrigation rights (but not transformation arrangements, which are dealt with by the *Water market rules*).

According to the Act, ‘irrigation right’ means a right that:

- (a) a person has against an irrigation infrastructure operator to receive water; and
- (b) is not a water access right or a water delivery right.<sup>137</sup>

An irrigation infrastructure operator (IIO) is a person who owns or operates infrastructure for the storage, delivery or drainage of water (water service infrastructure) for the purpose of providing a service to another person and the operator operates that infrastructure for the purposes of delivering water for the primary purpose of being used for irrigation.<sup>138</sup>

A person’s irrigation right may be an explicit or implicit contract with the IIO. In most cases the contract includes a defined entitlement to water. However, in some cases the entitlement to water under an irrigation right is not clearly defined as a particular volume of water.

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Question 9–A What requirements, if any, should be placed on IIOs so as to enhance the trade/transfer of irrigation rights?

Question 9–B What are the advantages and disadvantages of requiring more explicit separation of an irrigation right from a water delivery right, where these are currently bundled?

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### 9.1 Trade and transfer of irrigation rights

Some IIOs have developed internal arrangements to allow the trade/transfer of an entitlement to water under an irrigation right. Such trades/transfers are necessarily limited to the IIOs area, and is governed by the policies and procedures, or otherwise at the discretion, of the IIO. The IIO may impose restrictions or conditions in relation to:

- who may purchase an irrigation right
- requirements for the holding or disposal of delivery rights against the IIO<sup>139</sup>
- the volume of entitlements to water under irrigation rights that can be traded

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<sup>137</sup> Section 4 of the Act.

<sup>138</sup> For a detailed discussion of which entities may or may not be considered an IIO, see ACCC, *Water market rules—ACCC advice to the Minister for Climate Change and Water*, pp. 8 and 9, available at the Department of the Environment, Water, Heritage and the Arts, [www.environment.gov.au/water/action/market-charge-rules.html](http://www.environment.gov.au/water/action/market-charge-rules.html).

<sup>139</sup> See chapter 8 of this paper.

- adjustments to account for conveyance losses or for other reasons
- other restrictions.

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Question 9–C Are the policies and procedures of IIOs in relation to the trade/transfer of irrigation rights transparent and accessible to their customers?

Question 9–D To what extent, and in what circumstances, is it appropriate for an IIO to impose restrictions on the ‘permanent’ trade of an irrigation right to another person located **within** the IIO’s area? What are the specific forms of any current restrictions, and their implications?

Question 9–E To what extent, and in what circumstances, is it appropriate for an IIO to impose restrictions on the ‘temporary’ trade of water allocated under an irrigation right to another person located **within** the IIO’s area? What are the specific forms of any current restrictions, and their implications?

Question 9–F What are the arguments for and against linking the ability to trade/transfer irrigation rights with the possession, transfer or termination of water delivery rights against the IIO?

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### 9.1.1 Transformation of an irrigation right

‘Permanent’ trade of a water entitlement under an irrigation right, out of an IIO area, requires ‘transformation’ of the holder’s water entitlement under their irrigation right into a separately held water access entitlement. These procedures are the subject of the separate Water Market Rules (see box 9.1).

#### **Box 9.1—the role of water market rules**

The ACCC recently provided advice to the minister on the water market rules.<sup>140</sup> Irrigators often do not hold their water entitlements directly. Instead IIOs hold water entitlements collectively on behalf of their members. The water market rules will better enable irrigators to ‘transform’ their entitlement to water under an irrigation right against an IIO, into a separately held water access entitlement.

### 9.1.2 Trade of allocation to or from an irrigation right

Where a person holding an irrigation right wishes to trade/transfer a specific volume (allocation<sup>141</sup>) of water to or from a location outside of their IIO’s area, they will generally require the approval of the IIO. Such a purchase (sale) would result in an increase (decrease) in the volume of water available to them under their irrigation right

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<sup>140</sup> See ACCC, *Water market rules—ACCC advice to the Minister for Climate Change and Water*, available at the Department of the Environment, Water, Heritage and the Arts, [www.environment.gov.au/water/action/market-charge-rules.html](http://www.environment.gov.au/water/action/market-charge-rules.html).

<sup>141</sup> ‘Allocation’ is used here in the sense of a specific amount of water available to be taken under an irrigation right at a particular time. It is not a reference to a ‘water allocation’ as defined by the Water Act.

at the time. It would also increase (decrease) the amount of water in the IIO's account<sup>142</sup>, with a corresponding decrease (increase) in the purchasers account. An IIO may impose restrictions on such transactions, including:

- restrictions on who may be party to such a transaction
- adjustments to the traded volume of water, to account for conveyance losses or for other reasons
- other restrictions.

Alternatively, the IIO may not allow any such transactions to occur at all.

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Question 9–G To what extent, and in what circumstances, is it appropriate for an IIO to impose restrictions on the trade/transfer of water allocated to an irrigation right to a location outside of the IIO's area? What are the specific forms of any current restrictions, and their implications?

Question 9–H To what extent, and in what circumstances, is it appropriate for an IIO to impose restrictions on the trade/transfer of a specific volume of water from outside the IIO's area, to a location in the IIO's area?

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<sup>142</sup> For example, in New South Wales this would be an adjustment to the IIO's water allocation account.

## 10 Approval processes

This chapter deals with the administration of trades and transfers of tradeable water rights. Trading rules (which approval authorities are charged with administering) are discussed in chapters 5 to 9 of this paper.

The trade/transfer of a water access right or a statutory water delivery right often requires the approval of the relevant Basin state(s). The approval role is usually held by a state government department or is delegated to an infrastructure operator (see appendix B for further information on specific approval authorities throughout the MDB).

Each Basin state administers its own trading rules and administrative processes for the trade and transfer of tradeable water rights within their state. Although there are similarities between the approval processes of each Basin state, there are also significant differences. Where a trade/transfer occurs between Basin states, specific rules may apply (such as those contained in the schedules and protocols of the MDB Agreement). However, even with specific rules, such interstate trades/transfers require differing Basin state administrative processes to be reconciled.

The relevant approval authority typically depends on the type of trade/transfer in question. Some Basin states require all trades/transfers to be approved, while others only require approval where an applicant seeks to change the characteristics of the right, such as the location of extraction for a water access right.

Trades/transfers of irrigation rights and water delivery rights against irrigation infrastructure operators typically require the approval of the relevant IIO. Approval processes and rules governing such trades vary from IIO to IIO, and in many cases may not be clearly documented.

### 10.1 Consideration of applications by multiple approval authorities

A key objective for water market and trading rules is to minimise transaction costs on water trades, including through good information flows in the market and compatible entitlements and other regulatory arrangements across jurisdictions.

However, there is often a need for multiple authorities to be involved in one water trade (e.g. an interstate trade/transfer requires the approval of authorities in each state).

To the extent that some more complex transactions also require consideration by more than one approval authority within a state (e.g. a change in both ownership and location of a water access right), transaction costs will necessarily be higher.

There are a number of potential disadvantages to having more than one authority involved in the approval process of a trade, including:

- potential miscommunication between approval authorities
- inconsistent information requirements
- inconsistent applications by market participants or intermediaries
- additional steps in the approval process.

These disadvantages can lead to longer approval times (see section 10.4) and other transaction costs.

However, such complexities necessarily arise to some extent, given that water access rights (and some forms of water delivery rights) are rights by or under the law of a state and that changes to these rights resulting from their trade and transfer must be recorded on one or more state-based registers.<sup>143</sup>

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Question 10–A What are the practical implications of multiple approval authorities involved in the approval of a trade/transfer?

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## 10.2 Information sharing between approval authorities

Basin states and their approval authorities work both formally<sup>144</sup> and informally to develop protocols and operating procedures in an attempt to reduce the potential implications of different approval process. However, there is arguably considerable scope for further improvements.

The COAG Working Group on Climate Change and Water has acknowledged the desirability of simplified processes for approving trades to meet the immediate challenge of establishing well functioning water markets with reduced transaction costs and processing times.<sup>145</sup>

Enhanced information-sharing between approval authorities in the Basin states may also reduce transaction costs, particularly if this were to lead to consistent procedural and information requirements.

When deciding on an application to trade/transfer a water access right, approval authorities usually have to ascertain whether the relevant volume of water is held by the applicant (e.g. the volume of water allocation in a person's account). For example, for a trade/transfer of a water allocation between Basin states, the approval authority in the state of destination must wait for confirmation from the state of origin before providing preliminary approval, and again before crediting the account in the state of destination.

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<sup>143</sup> Registers are considered in more detail in section 11.5 of this paper.

<sup>144</sup> For instance, the Murray-Darling Basin Commission Trade Working Group, which comprises Basin state representatives, and the Trade Operators Panel, which comprises approval authority representatives

<sup>145</sup> COAG Working Group on Climate Change and Water, *Water—report to Council of Australian Governments, March 2008*, p. 13, viewed on 21 January 2009, [www.coag.gov.au/coag\\_meeting\\_outcomes/2008-03-26/docs/CCWWG\\_water\\_report.doc](http://www.coag.gov.au/coag_meeting_outcomes/2008-03-26/docs/CCWWG_water_report.doc).

While such measures are prudent—in the sense that they prevent water being ‘created’ (credited at one end, but not debited at the other)—they can add significantly to transaction costs.

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Question 10–B What are the advantages and disadvantages of enabling Basin state approval authorities to have direct access to each other’s registers and/or accounts for the purposes of determining or giving effect to particular kinds of trade/transfer?

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### 10.3 Applications to trade/transfer

Basin states have a range of application forms available for those wishing to apply to trade/transfer a tradeable water right. The application forms—and conditions on how applications must be made—vary both between and within Basin states depending upon the nature of the trade/transfer in question (see box 10.1).<sup>146</sup>

#### **Box 10.1—trade/transfer applications**

In Victoria and New South Wales, applications relating to a water allocation may be lodged with the relevant water authority by fax or email.<sup>147</sup> However, for applications relating to a water share (entitlement), the original signed form must be lodged by post or in person with the relevant authority.<sup>148</sup>

In South Australia, the application form (and fee) for a water trade/transfer must be lodged by post or in person with the Department of Water, Land and Biodiversity Conservation.<sup>149</sup> The Queensland Department of Natural Resources and Water also requires applications to transfer a water entitlement be made by post or in person.<sup>150</sup>

In the Australian Capital Territory, the applicant is required to write to the Territory’s Environment Protection Authority requesting permission to trade a water right.

Where an approval authority accepts electronic lodgement (by email or online) of an application form, the approval process is likely to be simpler and more timely and accessible for water market participants. Conversely, where application forms must be

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<sup>146</sup> The availability of these forms and other information to enable the trade/transfer of tradeable water rights is considered in section 11.2 of this paper.

<sup>147</sup> The Victorian Department of Sustainability and Environment has set out directions for applying for assignment of a water allocation, including how it must be lodged (e.g. by email). See Department of Sustainability and Environment, *Directions related to the form and manner for making an application for assignment of a water allocation*, viewed 27 January 2009, [www.waterregister.vic.gov.au/Public/Documents/Form39\\_direction.pdf](http://www.waterregister.vic.gov.au/Public/Documents/Form39_direction.pdf).

<sup>148</sup> For New South Wales, instructions on how to fill in various forms related to water access licence dealings are available on the Department of Lands website, viewed 27 January 2009, [www.lands.nsw.gov.au/land\\_titles/dealing\\_forms/manual\\_wal\\_dealing\\_forms](http://www.lands.nsw.gov.au/land_titles/dealing_forms/manual_wal_dealing_forms).

<sup>149</sup> An example of the relevant Department of Water, Land and Biodiversity Conservation form, viewed on 27 January 2009, [www.dwlbc.sa.gov.au/assets/files/ra\\_rm02\\_v5.pdf](http://www.dwlbc.sa.gov.au/assets/files/ra_rm02_v5.pdf).

<sup>150</sup> See, for example, guidelines issued by the Department of Natural Resources and Water, viewed on 27 January 2009 [www.nrw.qld.gov.au/water/management/pdf/ropg04.pdf](http://www.nrw.qld.gov.au/water/management/pdf/ropg04.pdf).

submitted by post and/or in person, there are more likely to be significant delays in the process and higher transactions costs for applicants.

Where a trade/transfer involves more than one approval authority, it is common for applicants to submit an identical application to both approval authorities. This allows both approval authorities to begin processing the application, without needing to wait for the other.

However, such requirements mean that the applicants may be subject to two sets of restrictions on how applications may be made (e.g. if one approval authority does not accept electronic copies of application forms). There is also a risk that the content of the two applications will differ (either through human error or because amendments may be made to one application but not the other). This can cause applications to be refused or returned with corresponding delays and costs.

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Question 10–C What considerations are relevant when considering the form and manner of applications to trade/transfer tradeable water rights?

Question 10–D Are there other legislative requirements limiting the ability of approval authorities to accept applications electronically?

Question 10–E Is there scope to develop application forms relating to the trade/transfer of tradeable water rights that are consistent between states? Would there be merit doing so?

Question 10–F What are the advantages and disadvantages of allowing applications to be lodged through a single portal (to be forwarded to the appropriate approval authority or authorities)?

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## 10.4 Approval times

The time taken to approve a trade/transfer (including the registration of the trade/transfer where necessary) can depend upon:

- whether the trade/transfer involves a change in ownership of the right (as there may be a need to discharge encumbrances)
- a change in location (for water access rights)—this may necessitate an assessment of the likely impact of the trade
- whether the trade/transfer is between water systems (including between water systems in different states)—as more than one approval will often be required
- the accuracy of information provided by the applicants (or intermediaries)
- the number of applications, given available resources (it can be difficult for approval authorities to ‘gear up’ in response to a temporary surge in applications).

The time taken to approve water trades varies considerably within and between states. The National Water Commission (NWC) recently reported on approval times for water access entitlement and water allocation trades/transfers in the MDB. See box 10.2.

## **Box 10.2—2007–08 approval times**

### **Water access entitlements**

In Queensland over 80 per cent of water allocation (water access entitlement) subdivisions, amalgamations and location changes were processed within 7 days, with more than 95 per cent processed within 30 days.<sup>151</sup>

In New South Wales, 15 per cent of water access licence trades were approved within 30 days, 25 per cent in 31 to 60 days and 35 per cent in 61 to 120 days, with 25 per cent taking more than 121 days to process.

In South Australia more than 50 per cent of entitlement transfers were processed within 30 days and around 25 per cent between 31 to 60 days, with approximately 20 per cent taking over 61 days to process.

### **Water allocations**

In Victoria, between January and July 2008, 90 per cent of trades were processed within 10 days.<sup>152</sup>

In New South Wales, for the 2007–08 year, over 35 per cent of allocation trades were approved within 7 days, around 20 per cent in 8 to 14 days and 25 per cent in 15 to 30 days, with approximately 20 per cent taking 31 days or longer to process.<sup>153</sup>

In South Australia in 2007–08, around 15 per cent of allocation trades were approved within 7 days, around 25 per cent took between 8 to 14 days and over 35 per cent took between 15 to 30 days, with approximately 20 per cent taking more than 31 days.<sup>154</sup>

It is important to the efficient operation of the market that applications are processed in a timely way. Long or unexpected processing delays will provide a disincentive to trade because they can impose additional transaction costs. This will cause trading opportunities to be foregone and prevent the market from allocating water to its most efficient use.

Undue delays in processing water allocation applications can also have serious consequences in circumstances where a crop urgently requires watering.

COAG has recently developed service standards for the approval of water allocation trades for Basin states. The service standards, set through COAG, require:

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<sup>151</sup> NWC, *Australian Water Markets Report, 2007–2008*, December 2008, pp. 121–24.

<sup>152</sup> No data was made available to the NWC regarding approval times for water access entitlements in Victoria.

<sup>153</sup> There is no data for seasonal water assignments (water allocations) in Queensland because approval is only required if the underlying entitlement needs to be changed, amalgamated or subdivided.

<sup>154</sup> The NWC has noted that allocation processing times are often longer in South Australia because South Australia currently operates under a bundled system whereby the tradeable right to an annual allocation has not yet been separated from the underpinning entitlement. This means that the administrative process for allocation transfers (except ‘top-up trades’) is similar to that for an entitlement transfer.

- 90 per cent of **interstate** allocation trades to be processed within 20 business days
- 90 per cent of **intrastate** allocation trades to be processed within 10 business days.

Basin states have committed to reporting on their performance against these service standards.<sup>155</sup>

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Question 10–G What factors can negatively influence approval times? What measures should be taken to address these factors?

Question 10–H What are the advantages and disadvantages of incorporating maximum approval times into water trading rules? What factors would need to be taken into account in setting these times?

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## 10.5 The interaction between approval authorities and intermediaries

Water market participants often use the services of an intermediary (such as a water broker or exchange) when seeking to trade/transfer a tradeable water right. As such, approval authorities often deal directly with intermediaries rather than with the owner of the water access right.

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Question 10–I What requirements are placed on intermediaries when dealing directly with approval authorities regarding an application to trade/transfer?

Question 10–J Do approval authorities recommend specific brokers or exchanges to water market participants? On what basis are such recommendations made?

Question 10–K Is there evidence that particular applications to trade/transfer are expedited or processed differently by approval authorities because those applications take place through a particular exchange or broker? If so, what is the justification for this?

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<sup>155</sup> For example, the Victorian Water Register reports that for January and February 2009 the standard for intrastate trades was met for 96 per cent of intrastate trades and for 97 per cent of interstate trades; see [www.waterregister.vic.gov.au/Public/Reports/ProcessingTimes.aspx](http://www.waterregister.vic.gov.au/Public/Reports/ProcessingTimes.aspx).

State Water (New South Wales) reports that for January 2009 it met the standard for interstate trades (excluding to and/or from South Australia) for 96.3 per cent of trades; for interstate trades to and/or from South Australia, for 98 per cent of trades; and for intrastate trades, for 97.8 per cent of trades. State Water, *Allocation Assignment Service Standard*, viewed 13 February 2009, [www.statewater.com.au/watdel/Trade-SS-Report.pdf](http://www.statewater.com.au/watdel/Trade-SS-Report.pdf).

The Queensland Department of Natural Resources report for January 2009 shows that it met the standard for 100 per cent of trades (for ‘temporary’ unsupplemented water trades). Viewed 19 February 2009, [www.nrw.qld.gov.au/water/trading/market\\_info.html](http://www.nrw.qld.gov.au/water/trading/market_info.html).

SunWater (which processes ‘temporary’ supplemented water trades) also met the standard for 100 per cent of trades. Viewed 19 February 2009, [www.sunwater.com.au/watertrading.htm](http://www.sunwater.com.au/watertrading.htm).

## 10.6 Approval authorities' other activities

Issues may arise where an approval authority also engages in other, potentially market-sensitive, activities. For example, an approval authority may also:

- be an infrastructure operator (providing services to customers and levying a regulated water charge)
- act as a water broker, or run a water trading exchange
- own and/or actively trade water access rights.

Where an approval authority has multiple roles, there can be a perception of a conflict of interest that may undermine the credibility and transparency of the water market if it is not adequately addressed.

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Question 10–L What influence, if any, does an approval authority's other activities have on its consideration of applications to trade and transfer tradeable water rights?

Question 10–M Are there examples of approval authorities with conflicts of interest? If so, are measures taken to address this possible conflict? Are these measures adequate?

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# 11 Reporting and the availability of information

The water trading rules may relate to the availability of information to enable to the trading or transfer of tradeable water rights, and the reporting of trades and transfers. This chapter considers issues relating to information and reporting requirements.

Access to timely and accurate information is critical to a well functioning water market because it allows participants to make informed decisions about managing their water access and delivery needs.

Although irrigators and other water users may be familiar with the terminology, the general level of prices, product characteristics and trading rules associated with tradeable water rights in their own area, they may lack this information as it applies in other areas, particularly interstate. A lack of information can inhibit otherwise beneficial trades and transfers from occurring and otherwise raise transaction costs for market participants.

While relevant information is generally available at present, there may be issues relating to its accessibility, currency and—in some cases—accuracy and clarity. This chapter considers these issues in more detail, as well as how the reporting of trades and transfers could assist market participants and others.

Sections 11.1 and 11.2 discuss what information is available regarding tradeable water rights and how they can be traded. Section 11.3 concentrates on the availability and reporting of trading volume and pricing data, and section 11.4 considers the disclosure of other market-sensitive information. Section 11.5 reviews what information is, and could be, made available on water registers.

## 11.1 Information regarding tradeable water right characteristics

Tradeable water rights are either rights by or under the law of a state, or are otherwise granted relevant to a specific water system or area within a Basin state. As such, the characteristics of tradeable water right differ considerably between (and often within) Basin states.

The most obvious example of this variation is the terminology used to describe the rights, and related trades/transfers (see box 11.1).

### **Box 11.1—Terminology**

The terms employed for water rights vary significantly throughout the MDB. In particular, Basin states use different terms to describe water access rights and other tradeable water rights.

For example, the term used to describe the primary form of water access right in each Basin state (generally regarded as a water access entitlement) is a:

- ‘water share’ in Victoria
- ‘water access licence’ in New South Wales
- ‘water allocation’ in Queensland
- ‘water licence’ in South Australia
- ‘water access entitlement’ in the Australian Capital Territory.<sup>156</sup>

Consequently, terminology to describe particular types of trade and transfer of tradeable water rights also varies considerably.

In some cases different terms are used to refer to essentially the same type of right or transaction<sup>157</sup>; in other cases, the same term may have very different meanings throughout the MDB.<sup>158</sup>

Harmonising the terminology used across the MDB for water rights and their trade/transfer has significant intuitive appeal. Consistent terminology would result in less confusion about the various tradeable water rights and would arguably assist the transformation to a truly Basin-wide water market.

However, changes to terminology may involve significant costs and could arguably lead to greater confusion among market participants in the short term. There is also uncertainty about the magnitude of such benefits, given the localised nature of most water trades (where trading occurs within systems). Conversely, it could be argued that the strong preference for intrastate and intra-resource trade is caused, in part at least, by participants being reluctant to deal with unfamiliar product and/or trading system terminology.

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<sup>156</sup> NWC, *Dictionary of terms for water access entitlements and transactions*, April 2006, viewed 11 February 2009, [www.nwc.gov.au/www/html/555-dictionary-of-terms-for-water-access-entitlements-and-transactions.asp?intSiteID=1](http://www.nwc.gov.au/www/html/555-dictionary-of-terms-for-water-access-entitlements-and-transactions.asp?intSiteID=1).

<sup>157</sup> NWC, *Australian Water Markets Report, 2007–2008*, December 2008, p. xii.

<sup>158</sup> For example, in Queensland, an ‘allocation’ refers to the perpetual or ongoing right to a share of water, while elsewhere in the Basin, this term refers to the specific volume of water allocated to such an entitlement.

Other characteristics of tradeable water rights are also relevant to a person's decision to trade/transfer. These characteristics include:

- the priority class of a water access right, and the process for determining when and how much water is available under a water access right (particularly in regulated systems)<sup>159</sup>
- the reliability of a water access right (or an irrigation right)<sup>160</sup>
- carryover policies
- fees and charges payable on the holding or use of the right
- other terms and conditions relating to delivery, extraction or use.<sup>161</sup>

These characteristics vary between particular types of tradeable water rights relating to a single water system and, of course, they vary across different water systems and different Basin states. Such variation arises largely from differences in the availability of water and the management objectives between water systems and areas.

There is no single place where potential water market participants can access information about the characteristics and the trading rules and requirements for tradeable water rights throughout MDB.<sup>162</sup> As such, it is difficult to assess the relative merits of trading/transferring a tradeable water right (particularly when comparing rights from different water systems and/or Basin states).

A lack of information about the difference in water products and their associated rules (including trading rules) may operate as a disincentive or barrier to interstate trade, or trade between different water sources.

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<sup>159</sup> See section 11.4.1 of this paper for further discussion of this information.

<sup>160</sup> 'Reliability' here to refers to a historical measure and/or guide to water availability, rather than the priority class that may be associated with a water access right. The Productivity Commission defines reliability as 'A probability attached to the volumetric entitlement of some water rights that describes the number of years in every 100 that the volumetric entitlement will be met in full'. [See Productivity Commission, *Water Rights Arrangements in Australia and Overseas, Commission Research Paper*, 2003, pp. 317–18.]

A water access right's reliability stems from the priority it has when allocations are made. Water access rights with equal headline reliability may nevertheless deliver differing average water allocations over the long term—for example, in systems characterised by highly variable inflows and little storage, allocations in dry years may be very low—while other systems with the same headline reliability may be able to allocate more water in the dry years, meaning that on average, more water is available over the long term.

Similarly, water access rights with the same headline reliability—and even the same average allocation over time—may differ with respect to the probability of allocations reaching a certain percentage (say, half) of the headline entitlement amount in any given year.

<sup>161</sup> See also chapter 7 of this paper.

<sup>162</sup> Part 5 of the Act provides that the MDBA may establish a Murray-Darling Basin Water Rights Information Service to allow access to information on 'registrable water rights' (including water access rights, irrigation rights and water delivery rights) included in water registers operated by Basin states, irrigation infrastructure operators (IIOs) and others.

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- Question 11–A What issues do market participants encounter in relation to obtaining information to enable the trade/transfer of tradeable water rights?
- Question 11–B How relevant are the particular characteristics of a tradeable water right to a decision to trade/transfer?
- Question 11–C Are there particular characteristics of water access rights where greater consistency throughout the MDB would lead to more efficient markets?
- Question 11–D What are the advantages and disadvantages of developing consistent terminology for use throughout the MDB in relation to the trade/transfer of tradeable water rights?
- Question 11–E What are the advantages and disadvantages of providing information about the characteristics associated with tradeable water rights:
- (a) at a single point (e.g. a website)?
  - (b) in a particular format and/or template?
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## 11.2 Information about trading rules and processes

As explained in chapters 3 and 10, trading rules and procedural requirements are located in a variety of instruments and are administered by a range of approval authorities and other entities.

Having ready access to this information is clearly critical to a well functioning water market.

Water market intermediaries often fulfil this information role (see box 11.2), among others, and generally charge a commission or flat fee.

### **Box 11.2—Information provided by water market intermediaries**

A water market intermediary facilitates water trades/transfers by matching willing buyers to willing sellers. The intermediary may also reduce the cost of the transaction by searching for information about water trading rules and obtaining approval for the trade from the relevant authorities. A water market intermediary could be a water broker, water exchange or a conveyancer arranging for a transfer of title.

As the process of trading or transferring a tradeable water right is often complex, water market intermediaries play an important role by assisting in the smooth operation of the market. It has been estimated that between 80 to 90 per cent of trades are facilitated by intermediaries<sup>163</sup>, but this figure can be expected to vary throughout the MDB.

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<sup>163</sup> The Allen Consulting Group, op. cit., p. 26.

Intermediaries can also be a valuable source of information, assisting water market participants to understand the rules and restrictions governing trades and transfers, and how to comply with the administrative requirements associated with settling a trade.

In addition, Basin state government departments and other approval authorities also provide access to this information, typically through their websites. However, this information may be difficult to locate or interpret, and may not provide a complete picture of the relevant rules and procedures.

On the other hand, the use of trading zones (as discussed in section 6.1) tends to simplify the process of determining whether a potential trade/transfer will be permitted. In some cases where trading rules are defined with reference to upper and lower limits (e.g. trade in unsupplemented systems in Queensland), water market participants are able to determine in advance whether a trade is likely to be approved.

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Question 11–F What measures could be taken to make trading rules more easily accessible and transparent for stakeholders?

Question 11–G What are the advantages and disadvantages of providing information about water trading rules and requirements:

(a) at a single point (for example, a website)?

(b) in particular format(s) and/or template(s)?

Question 11–H Are there any concerns about the role of intermediaries in providing information about trading rules and other related matters to water market participants?

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## 11.3 Trading volumes and prices

### 11.3.1 Reporting of trading volumes and prices

The trading rules may relate to the reporting of the trading or transfer of tradeable water rights<sup>164</sup>

As discussed above, it is important that the prices of water trades are made publicly available in order to provide clarity and transparency to the water market.

For this information to be available for use and analysis by water market participants, their advisers and other stakeholders, water traders must be required to record the price at which a trade is settle to a water register.

Trading volume and price data is collected by a range of entities, including Basin state governments, IIOs, approval authorities and intermediaries. However, the extent to

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<sup>164</sup> Section 26(1)(i) of the Act.

which this data is collected and the method by which it is collected and disclosed may differ between jurisdictions.<sup>165</sup>

The Bureau of Meteorology has a number of roles under the Act, including the collection of water information on the trade of water allocations and water access entitlements.<sup>166</sup>

State governments collect pricing information on registration of trades and transfers of entitlements ('permanent' trades), with the exception of the Australian Capital Territory.<sup>167</sup> Currently, price data on allocation trades is collected by New South Wales, South Australia and Victoria.<sup>168</sup>

However, data collected on allocation trades does not include information regarding trades and transfers of irrigation rights within irrigation infrastructure operators.

There may be some concerns about the quality of pricing data reported and made available. Values provided can range widely and it is relatively common for transactions to be recorded as having occurred at zero or nominal price. This may occur where:

- rights are traded/transferred between related parties (within a family or farming enterprise)
- water transactions are part of a bundled sale of land, water and other assets
- the value of the transaction is simply not reported.<sup>169</sup>

In addition, trades and transfers between parties may be undertaken through a barter arrangement.

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<sup>165</sup> PricewaterhouseCoopers, *Pricing and personal information disclosure consultancy project, Final report*, a report commissioned by the NWC, November 2006, p. 10, viewed 14 February 2009, [www.nwc.gov.au/www/html/567-pricing-and-personal-information-disclosure-consultancy-project.asp](http://www.nwc.gov.au/www/html/567-pricing-and-personal-information-disclosure-consultancy-project.asp).

<sup>166</sup> Under regulation 7.11 and schedule 3 of the Water Regulations 2008, the following kinds of water information must be provided to the Bureau under s. 126 of the Act:

For permanent Australian water access entitlement trades—the type of entitlement traded, transaction commencement and finalisation dates, volume of water traded or entitlement share traded, gross and net share sale price, and the water management areas water has moved from and to.

For temporary Australian water allocation trades and leases—the type of allocation traded or leased, transaction commencement and finalisation dates, volume of water traded or leased, gross and net sale price, and the water management areas water has moved from and to.

<sup>167</sup> PricewaterhouseCoopers, *op. cit.*, p. 11.

<sup>168</sup> Pricing data for allocations for the 2007–08 water year was included in: NWC, *Australian Water Markets Report, 2007–2008*, December 2008.

<sup>169</sup> PricewaterhouseCoopers, *op. cit.*, p. 11.

Data on trading volumes is necessarily captured as a result of approval processes. However, the data may also be reported, classified and recorded on different bases, including on whether the trade/transfer:

- involves a change of ownership
- involves a change of location within a water system and/or zone.

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Question 11–I What are the advantages and disadvantages of requiring water market participants to report the price of their water trades/transfers as a condition of approval and/or registration?<sup>170</sup>

Question 11–J What practical measures could be taken to ensure the accuracy of pricing data that is reported?

Question 11–K To what extent do differences in how data (in relation to the trade/transfer of tradeable water rights) is collected, classified and reported affect the usefulness of trading volume and pricing information?

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### 11.3.2 Available information on trading volumes and prices

To make an informed decision about when and how to trade water, potential water market participants need information about the market value of the water right they wish to trade.

Some pricing and trading volume information is available from intermediaries and operators including Waterfind, Water Exchange, Watermove and the SunWater Exchange.<sup>171</sup> Water registers also often include trading volume data and, to a lesser extent, pricing data (see section 11.5)

Information about the pricing patterns of water rights in the previous season will also be available from the NWC's 'Australian Water Markets Report', which will be published annually (the inaugural report covered the 2007–08 water year).

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<sup>170</sup> See section 11.5 of this paper.

<sup>171</sup> For example, **Waterfind** provides the [weighted average price](http://www.waterfind.com.au/jsf/water-market.jsf) for water of a specified reliability in a specified zone (where sufficient data is available). See: Waterfind site, viewed 10 February 2009, [www.waterfind.com.au/jsf/water-market.jsf](http://www.waterfind.com.au/jsf/water-market.jsf).

**Water Exchange** provides information about pricing for specified zones, including pricing trends over the last week. See: Water Exchange site, viewed 10 February 2009, <https://www.waterexchange.com.au>.

**Watermove** provides the pool price for specified zones. See Watermove site, viewed on 10 February 2009, [www.watermove.com.au/selectregion.asp?next=results/pricesummary.asp](http://www.watermove.com.au/selectregion.asp?next=results/pricesummary.asp).

The **SunWater Exchange** provides a pool price for specified zones. See: SunWater site, viewed 10 February 2009, [www.sunwater.com.au/exchange.htm](http://www.sunwater.com.au/exchange.htm).

Even when available, this information may not be current or may be difficult or costly to access. This can inhibit confidence in the market and impose transaction costs, thereby hindering the efficiency of the market.

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Question 11–L What measures could assist in making trading volume and price data more readily available to interested parties?

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## 11.4 Other market-sensitive information

### 11.4.1 Allocation announcements

As outlined in chapter 6, water in regulated systems is made available for use through regular announcements from the relevant Basin state or infrastructure operator, referred to as **allocation announcements**.<sup>172</sup>

The timing and process of an allocation announcement may have the capacity to affect the current price of water access rights, particularly water allocation prices.

For example, if buyers believe that further allocation announcements will not result in an increase in available water, the price of water allocations will tend to rise. However, if allocation announcements are at a higher level than expected, prices may fall.

Each Basin state has a different system (and terminology) for how allocation announcement decisions are made (see box 11.3).

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Question 11–M What concerns, if any, are there with the current approaches informing water market participants about allocation announcements?

Question 11–N What are the advantages and disadvantages of water authorities providing forecasts for future water allocation announcements?

Question 11–O Is sufficient information available on how water allocations are calculated?

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<sup>172</sup> The magnitude of these allocation announcements depends on the amount of water currently available (or forecast to be available), storage levels, the amount of rights issued (and their priority), other water commitments and management decisions. The rules for calculating the figure may be contained in the relevant water resource plans.

### **Box 11.3—Allocation announcements**

#### **New South Wales**

From time to time the NSW minister may, by order in writing, make an ‘available water determination’ as to the availability of water for one or more categories or subcategories of access licences for one or more specified water management areas or water sources.<sup>173</sup> Available water determinations are expressed as ML/unit share (but are publicised as percentage allocations)<sup>174</sup> and are recorded on the available water determinations register.<sup>175</sup>

#### **Queensland**

An ‘announced allocation’ is a declaration detailing the percentage of the maximum volume of water allocation (determined by inflow in rivers and dams) that may be taken during a water year, from a supplemented (regulated) supply and from some ground water areas. The announced allocation is declared from time to time by the holder of a resource operations licence (ROL) in accordance with the rules of the licence.<sup>176</sup> Announced allocations are available on the SunWater website.<sup>177</sup>

#### **Victoria**

The amount of water available for a water year is determined by the water authority and expressed as a percentage of a water share.<sup>178</sup> Allocation announcements are available on water authorities’ websites.

#### **South Australia**

The announcement is made by the SA minister in a press release and is made available on the Department of Water Land and Biodiversity Conservation website.

### **11.4.2 Relevant policy changes**

The availability of information about changes to water trading and management rules and processes can also impact on the efficiency of water markets. Transparency and consistency about changes (or potential changes) to water trading and management rules and process can enable market participants to make more informed decisions.

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<sup>173</sup> Section 59(a) of the *Water Management Act 2000* (NSW).

<sup>174</sup> NWC, *Dictionary of terms for water access entitlements and transactions*, April 2006.

<sup>175</sup> New South Wales Department of Water and Energy, viewed 10 February 2009, [www.wma.naturalresources.nsw.gov.au/wma/DeterminationSearch.jsp?selectedRegister=Determination](http://www.wma.naturalresources.nsw.gov.au/wma/DeterminationSearch.jsp?selectedRegister=Determination).

<sup>176</sup> NWC, *Dictionary of terms for water access entitlements and transactions*, April 2006.

<sup>177</sup> SunWater, *All schemes announced allocations*, viewed 10 February 2009, [www.sunwater.com.au/pdf/allocation/All\\_Schemes\\_Announced\\_Allocations.pdf](http://www.sunwater.com.au/pdf/allocation/All_Schemes_Announced_Allocations.pdf).

<sup>178</sup> Department of Sustainability and Environment, *Glossary*, definition of ‘seasonal water allocation’, viewed 19 January 2009, [www.ourwater.vic.gov.au/allocation/water\\_allocation\\_framework/definitions](http://www.ourwater.vic.gov.au/allocation/water_allocation_framework/definitions).

Conversely, some changes in rules and/or policies may be required to close identified loopholes and advanced notice to water market participants may not be appropriate.

#### **Box 11.4—Carryover conditions**

A policy change that may have affected the water markets related to whether irrigators were allowed to carryover their allocation from one water year to the next.

On 7 February 2008 the state governments of New South Wales, Victoria and South Australia all announced that unused water allocations could be carried over into the 2008–09 season for major markets in the MDB system. Although carryover had been possible in some New South Wales river systems in other years, this was the first time that carryover was implemented in all three states.<sup>179</sup>

Changes to the availability of carryover (and conditions that apply) can be expected to influence trade/transfer decisions—for instance, by providing an incentive to hold water in areas with more generous carryover policies.

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Question 11–P How can the way in which a trading rule policy change is communicated affect the water market?

Question 11–Q What principles and procedures should be implemented in relation to the communication of policy changes that affect the water trading rules (e.g. should all stakeholders be notified of a change at the same time)?

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## **11.5 Information provided by water registers**

The water trading rules may provide for the use of registers to provide information about the trading/transfer of tradeable water rights.<sup>180</sup>

Throughout the MDB, water registers provide an accessible record of water access rights, irrigation rights and delivery rights, and the trade/transfer of these rights. Water registers may be maintained by Basin state governments, approval authorities or irrigation infrastructure operators. Water registers ensure that the integrity of each registered right is protected and provides interested parties with important information about the security, priority, location and conditions associated with each right.

As such, compatible, publicly accessible and reliable water registers are important to the development of a mature water market.<sup>181</sup>

Under the NWI, the states and territories agreed to put in place compatible, publicly accessible and reliable water registers of all water access entitlements and trades

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<sup>179</sup> Waterfind, *The Waterfind national water market report*, Adelaide, 2008, p. 19, viewed 8 January 2009, [www.waterfind.com.au/docs/WF2008report.pdf](http://www.waterfind.com.au/docs/WF2008report.pdf).

<sup>180</sup> Section 26(3) of the Water Act.

<sup>181</sup> NWC, 'Water Registers', viewed 11 February 2009, [www.nwc.gov.au/www/html/525-water-registers.asp](http://www.nwc.gov.au/www/html/525-water-registers.asp).

(including trades and/or transfers of water allocations) on a whole-of-Basin or catchment basis.

Under the Agreement on Murray-Darling Basin Reform (agreed on 3 July 2008), the Commonwealth and the States agreed that that the Commonwealth may assist Basin states to ensure that compatible electronic water registers are put in place.<sup>182</sup>

In the lead-up to this agreement, the Working Group on Climate Change and Water noted that:

The NWI includes a commitment to fully implement publicly accessible, compatible systems for registering water access entitlements and trades by end of 2006. However, there is an increasing recognition of the need to consider going beyond the NWI commitment by investigating the benefits and costs of moving to a common national registry system for water entitlements. In the meantime it is essential that jurisdictions increase efforts to enhance the functionality and compatibility of water registers to support water trade across irrigation area boundaries and state borders and improve water market performance.

A brief summary of the characteristics of the water register(s) in operation in each Basin state is provided in appendix C.

There is scope to increase the accessibility and efficiency of water registers by ensuring that each state's water registers are fully compatible with one another. These advantages may be further realised by the development of a single portal for all the Basin state water registers.

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Question 11–R How should the water trading rules provide for the use of registers to provide information about the trading or transfer of tradeable water rights?

Question 11–S To what extent are inter-operable registers between Basin states necessary to facilitate the operation of efficient water markets?

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<sup>182</sup> COAG, *Agreement on Murray-Darling Basin Reform*, 3 July 2008, clause 4.8.2.

# Appendix A Basin water market and trading objectives and principles

## 1. Definitions

In this Schedule:

*exchange rate* means the rate of conversion to be applied to water to be traded from one trading zone and/or jurisdiction to another.

*trading zones* means zones established to simplify administration of a trade by setting out the known supply source or management arrangements and the physical realities of relevant supply systems within the zone so that trade can occur within and between zones without first having to investigate and establish the details and rules of the system in each zone.

*water access entitlement tagging* means an accounting approach that allows a water access entitlement that is traded from one jurisdiction or trading zone to another jurisdiction or trading zone to retain its original characteristics when traded to the new jurisdiction or trading zone (rather than being converted into a form issued in the new jurisdiction or trading zone).

## 2. Objectives and principles

This Schedule sets out:

- (a) the Basin water market and trading objectives; and
- (b) the Basin water market and trading principles.

Note 1: These objectives and principles are relevant to the formulation of:

- (a) the provisions of the Basin Plan (see item 12 of the table in subsection 22(1)); and
- (b) the provisions of water management plans for particular water resource plan areas (see subsection 22(3)); and
- (c) the provisions of the water market rules (see paragraph 97(1)(b)).

Note 2: These objectives and principles are based on those set out in clauses 58 to 63 and Schedule G of the National Water Initiative when Part 2 of this Act commences.

### **3. Basin water market and trading objectives**

The objectives of the water market and trading arrangements for the Murray Darling Basin are:

- (a) to facilitate the operation of efficient water markets and the opportunities for trading, within and between Basin States, where water resources are physically shared or hydrologic connections and water supply considerations will permit water trading; and
- (b) to minimise transaction cost on water trades, including through good information flows in the market and compatible entitlement, registry, regulatory and other arrangements across jurisdictions; and
- (c) to enable the appropriate mix of water products to develop based on water access entitlements which can be traded either in whole or in part, and either temporarily or permanently, or through lease arrangements or other trading options that may evolve over time; and
- (d) to recognise and protect the needs of the environment; and
- (e) to provide appropriate protection of third party interests.

### **4. Basin water market and trading principles**

- (1) This clause sets out the Basin water market and trading principles.
- (2) Water access entitlements may be traded either permanently, through lease arrangements or through other trading options that may evolve over time, if water resources are physically shared or hydrologic connections and water supply consideration would permit water trading.
- (3) All trades should be recorded on a water register. Registers will be compatible, publicly accessible and reliable, recording information on a whole of catchment basis consistent with the National Water Initiative.
- (4) Restrictions on extraction, diversion or use of water resulting from trade can only be used to manage:
  - (a) environmental impacts, including impacts on ecosystems that depend on underground water; or
  - (b) hydrological, water quality and hydro-geological impacts; or
  - (c) delivery constraints; or
  - (d) impacts on geographical features (such as river and aquifer integrity); or
  - (e) features of major indigenous, cultural heritage or spiritual significance.

- (5) A trade may be refused on the basis that it is inconsistent with the relevant water resource plan.
- (6) Trades must not result in the long term annual diversion limit being exceeded. That is, trades must not:
  - (a) cause an increase in commitments to take water from water resources or parts of water resources; or
  - (b) increase seasonal reversals in flow regimes;  
  
above sustainable levels identified in relevant water resource plans such that environmental water or water dependent ecosystems are adversely affected.
- (7) Trades within over allocated water resources (including ground water resources) may be permitted in some cases subject to conditions to manage long-term impacts on the environment and other users.
- (8) Where necessary, water authorities will facilitate trade by specifying trading zones and providing related information such as the exchange rates to be applied to trades in water allocations to:
  - (a) adjust for the effects of the transfer on hydrology or supply security (transmission losses) or reliability; and
  - (b) reflect transfers between different classes of water resources, unregulated streams, regulated streams, supplemented streams, ground water systems and licensed runoff harvesting dams.
- (9) Water trading zones, including ground water trading zones, should be defined in terms of:
  - (a) the ability to change the point of extraction of the water from one place to another; and
  - (b) the protection of the environment.  
  
The volume of delivery losses in supplemented systems that provide opportunistic environmental flows will be estimated and taken into account when determining the maximum volume of water that may be traded out of a trading zone.
- (10) Exchange rates must not be used to achieve other outcomes such as to alter the balance between economic use and environmental protection or to reduce overall water use.
- (11) Trade in water allocations may occur within common aquifers or surface water flow systems consistent with water resource plans.
- (12) Trade from a licensed runoff harvesting dam (that is, not a small farm dam) to a river may occur subject to:

- (a) a reduction in dam capacity consistent with the transferred water access entitlement; or
  - (b) retention of sufficient capacity to accommodate evaporative and infiltration losses; or
  - (c) conditions specified in water resource plans to protect the environment.
- (13) Compatible institutional and regulatory arrangements will be pursued to improve intra and interstate trade, and to manage differences in entitlement reliability, supply losses, supply source constraints, trading between systems and cap requirements.
- (14) The transfer of water allocations and entitlements will be facilitated (where appropriate) by water access entitlement tagging, water access entitlement exchange rates or other trading mechanisms that may evolve over time.
- (15) Institutional, legislative and administrative arrangements will be introduced to improve the efficiency and scope of water trade and to remove barriers that may affect potential trade.
- (16) Barriers to permanent trade out of water irrigation areas are up to an annual threshold limit of four per cent of the total water entitlement of that areas will be immediately removed, subject to a review by 2009 by the National Water Commission under paragraph 7(2)(h) of the National Water Commission Act 2004, with a move to full and open trade by 2014 at the latest.
- (17) Subject to this clause, no new barriers to trade will be imposed, including in the form of arrangements for addressing stranded assets.

## Appendix B Approval authorities

### New South Wales

The New South Wales Department of Water and Energy (DWE) is required to consent to the following trades and transfers in relation to New South Wales water access licences:

- amending the category or subcategory of the licence
- changing the water source, or water management area, of the licence
- to vary the times, rates or circumstances specified in the licence with respect to taking of water under the licence, or to vary the locations from which water may be taken under the licence
- nominate a specified water supply works
- the subdivision or amalgamation of a water access licence.

Approval is not required for:

- the transfer of a water access licence (change in ownership)
- a term transfer.<sup>183</sup>

However, a water access licence trade/transfer will only take effect once it is recorded on the water access licence register.

State Water is required to approve water allocation transfers in New South Wales, and an allocation trade takes effect when State Water adjusts the relevant account balances.

### Victoria

In Victoria, trades and transfers of entitlements (known as water shares), allocations and term transfers require approval from the relevant Victorian water authority (on behalf of the Victorian minister) before the trade can proceed—regardless of whether the transaction involves a change of location.<sup>184</sup>

A water share trade/transfer must be recorded on the Victorian Water Register within two months from the date the water authority (on behalf of the Victorian minister) approves it.<sup>185</sup> If this time limit is not met, the approval may lapse and a new application will be required.

### Queensland

In Queensland, the Department of Natural Resources and Water (NRW) is required to approve the following types of transactions:

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<sup>183</sup> Sections 71M to 71W, *Water Management Act 2000* (NSW).

<sup>184</sup> Section 33W of the *Water Act 1989* (Vic).

<sup>185</sup> Section 33X of the *Water Act 1989* (Vic).

- A change in the location or purpose of an entitlement (known as a water allocation). Each resource operations plan for an area includes trading rules detailing permitted and prohibited changes to water allocations in the area
- Subdividing or amalgamating a water allocation. If a person wishes to amalgamate multiple allocations that do not have the same attributes (e.g. if they authorise taking water from different locations), the holder must also apply to NRW to change the location of one or more of the allocations, as they must all have the same attributes before they can be amalgamated.

NRW does not need to approve a lease or transfer of ownership of a water allocation because these do not affect the registered resource-related attributes (e.g. its location or purpose) of the allocation. However to have effect, all relevant documents must be registered on the Water Allocations Register.

To be registered on the Water Allocations Register, a transfer, lease, subdivision, amalgamation or change to an allocation taken from supplemented (regulated) supply must be accompanied by a notice to the registrar of the existence of a supply contract with the supply scheme operator (e.g. SunWater).

If an unsupplemented water allocation is to be transferred or leased, notification of the proposed transfer must be provided to NRW before the transfer can be registered. This is not an approval but after the notification is submitted, NRW will issue a water allocation dealing certificate acknowledging the proposed transfer.<sup>186</sup>

### South Australia

In South Australia, the Department of Water, Land and Biodiversity Conservation must approve the trade and transfer of water access rights.<sup>187</sup> Trades that involve a change in location also require an impact assessment by DWLBC.<sup>188</sup>

South Australia currently operates under a bundled system whereby the water access right in the form of an annual allocation is not separated from the underpinning entitlement. This means that the administrative process for an allocation trade/transfer is similar to the process for an entitlement.<sup>189</sup>

South Australia is presently working towards an unbundled scheme for its water entitlements. Legislative amendments will enable the separation of water access entitlements from water allocations, site use approvals, water resource works approvals and delivery capacity entitlements. This unbundling is expected to take effect (in the Murray part of South Australia) in early 2009–10.<sup>190</sup>

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<sup>186</sup> Department of Natural Resources and Water (Qld), 'Approvals and registration', viewed 14 February 2009, [www.nrw.qld.gov.au/water/trading/approvals\\_reg.html](http://www.nrw.qld.gov.au/water/trading/approvals_reg.html).

<sup>187</sup> Section 157(1)(a) of the *Natural Resources Management Act 2004* (SA). Note: because South Australia has not yet fully unbundled, a South Australian allocation trade is akin to leasing the underlying water access entitlement.

<sup>188</sup> NWC, *Australian Water Markets Report, 2007–2008*, December 2008, p. 122.

<sup>189</sup> *ibid.*

<sup>190</sup> *ibid.*, p. 75.

Around 40 irrigation trusts operate in South Australia, holding a bulk licence on behalf of their members (who in turn have an irrigation right against the trust). The irrigation trusts develop and administer trading rules for their members, which apply to trades or irrigation rights between members of the trust.

### **Australian Capital Territory**

The Environmental Protection Authority must approve all trades in water entitlements. Under s. 26(1), the EPA must not approve the transfer of a water access entitlement unless satisfied that the proposed use is consistent with the conditions of the entitlement and the Territory Plan, and that it is appropriate to approve the transfer having regard to the transferee's environmental record and anything else the EPA considers appropriate.

The Australian Capital Territory has 14 statutory water management areas, each of which has specified volumes of water available for use and environmental purposes in that area.<sup>191</sup>

### **Irrigation infrastructure operators as approval authorities**

Irrigation infrastructure operators such as New South Wales Irrigation Corporations or South Australian Irrigation Trusts also develop and administer trading rules for their members, which apply to trades or transfers of irrigation rights between customers of the IIO.

Where a trade/transfer also requires an adjustment to the water access right of the IIO, it must also obtain the necessary approvals from the relevant jurisdictional approval authority.

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<sup>191</sup> *ibid.*, p. 116.

## Appendix C Water registers

### New South Wales

In New South Wales, the Water access licence register is maintained by the Department of Lands<sup>192</sup> and includes the following information about each water access licence (WAL):

- its current ownership
- any mortgages, charges or term transfers
- its share component (volume)
- the times, rates, circumstances and location where water can be extracted
- the water source
- any works approval numbers.

The WAL register is available online and can be searched for a fee.<sup>193</sup>

The New South Wales Department of Water and Energy also operates the following registers, all of which can be searched online<sup>194</sup>:

- Water access licence conditions register—provides basic information on water access licences under the *Water Management Act 2000* (New South Wales).
- Register for applications of water approvals—provides up-to-date information about the status of applications held by the Department of Water and Energy.
- Register of water approvals—provides up-to-date information about the status of approvals held by the Department of Water and Energy.
- Available water determinations—provides information about the volume of water available for extraction as determined by the available water determinations made by the NSW minister under s. 59 of the *Water Management Act*.
- Water allocation assignment register—provides up-to-date information about water allocation assignments.
- Water share register—provides up-to-date information about the trading of water access licence share components (part or all of the share of the available water under the licence) to another licence holder in the same water source under s. 71Q of the *Water Management Act*.

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<sup>192</sup> New South Wales Department of Lands, viewed 10 February 2009, [www.lands.nsw.gov.au/land\\_titles/public\\_registers/water\\_access\\_licence\\_register](http://www.lands.nsw.gov.au/land_titles/public_registers/water_access_licence_register).

<sup>193</sup> *ibid.* The fee is \$10.75.

<sup>194</sup> New South Wales Department of Water and Energy, viewed 10 February 2009, [www.wma.dnr.nsw.gov.au/wma/index.jsp](http://www.wma.dnr.nsw.gov.au/wma/index.jsp).

## Victoria

In Victoria, the Department of Sustainability and Environment (Office of Water), the Victorian Water Registrar and rural water authorities share the Victorian Water Register, which<sup>195</sup>:

- records who has been issued with water shares and the reliability, tenure, location and holding in megalitres for each water share
- records how much water has been allocated against water shares, how much has been used, and where it was used
- any interests in a water share such as mortgages and leases
- provides summary reports on the volume of water shares in each water system, annual allocations and use and the trading history of water shares (including average prices) for each water system.

The Victorian Water Register also includes pricing data.

## Queensland

In Queensland, the Department of Lands operates the Water Allocations Register, which records<sup>196</sup>:

- the names of the holder(s) and tenancy arrangements
- identifiers such as lot numbers, Crown plans and title references
- registered and unregistered dealings
- encumbrances and interests (e.g. mortgages)
- administrative advices (e.g. settlement notices)
- the conditions required by NRW
- the location, purpose and nominal volume
- the priority group (supplemented systems only)
- the extraction rate (unsupplemented systems only)
- the flow conditions (unsupplemented systems only)
- the volumetric limit (unsupplemented systems only)
- the water allocation group (unsupplemented systems only).

## South Australia

In South Australia, water licences are registered on the water information and licensing management application (WILMA), operated by the Department of Water, Land and Biodiversity Conservation (DWBLC). WILMA records sales of licences but does not record the allocation/use right and is not publicly available.<sup>197</sup>

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<sup>195</sup> Viewed 10 February 2009, [www.waterregister.vic.gov.au/Default.aspx](http://www.waterregister.vic.gov.au/Default.aspx).

<sup>196</sup> Queensland Department of Natural Resources and Water, 'Water allocations register', viewed 10 February 2009, [www.nrw.qld.gov.au/water/trading/register.html](http://www.nrw.qld.gov.au/water/trading/register.html).

<sup>197</sup> NWC, *Australian Water Markets Report, 2007–2008*, December 2008, p. 19.

The DWLBC also operates the trade assessment database, which records the allocation and use right attached to each water access entitlement (also not publicly available).<sup>198</sup>

The South Australian NRM Register, however, provides publicly available information on approved water licences and permits issued by DWLBC.<sup>199</sup>

The DWLBC website states that a new water register system will be established to give effect to the upcoming unbundling of water licences into water access entitlements, water allocations, site use approvals, water resource works approval and delivery capacity entitlements.<sup>200</sup>

### **Australian Capital Territory**

In the Australian Capital Territory, the Territory's Environment Protection Authority is required to maintain a register that includes details of water access entitlements granted, surviving allocations in force, licences issued and transfers made under the *Water Resources Act 2007* (ACT).<sup>201</sup>

### **Irrigation infrastructure operator registers**

Irrigation infrastructure operator (IIO) registers usually maintain an internal register to record their customers' and/or members' irrigation rights and to account for water usage.

A number of IIOs participate in the National Irrigation Corporations Water Entitlement Register (NICWER).<sup>202</sup>

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<sup>198</sup> *ibid.*

<sup>199</sup> DWLBC, 'NRM register', viewed 2 March 2009, [www.dwlbc.sa.gov.au/licensing/nrmregister/index.html](http://www.dwlbc.sa.gov.au/licensing/nrmregister/index.html).

<sup>200</sup> DWLBC, 'Separating water rights', viewed 13 February 2009, [www.dwlbc.sa.gov.au/licensing/swr/index.html](http://www.dwlbc.sa.gov.au/licensing/swr/index.html).

<sup>201</sup> Section 66 of the *Water Resources Act 2007* (ACT).

<sup>202</sup> As at 5 March 2009, the NICWER site ([www.nicwer.com.au](http://www.nicwer.com.au)) was still under construction, and participating irrigation corporations were listed as Coleambally Irrigation Cooperative Limited (NSW), Jemalong Irrigation (NSW), Western Murray Irrigation Ltd (NSW) and the Ord Irrigation Cooperative Ltd (Western Australia)—see [www.nicwer.com.au/contacts.aspx](http://www.nicwer.com.au/contacts.aspx).