



## Australian Economic Forum

### *Promoting efficient and effective water trading across the Murray- Darling Basin*

**20 August 2009, Sydney**

**Commissioner Ed Willett**

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#### **Introduction**

As you've just heard from Tony Kelly, there are many challenges ahead for the water sector in the supply of water to urban areas. These challenges parallel challenges of equal or greater magnitude in rural water supplies, and especially in the Murray-Darling Basin. A common theme in all these challenges is the growing recognition throughout Australia of the value of water.

We have moved well away from traditional thinking, attitudes and actions which have underpinned Australia's use of water since European settlement.

Indeed, Lyndon Rowe, who follows me, will discuss some of this new stream of thought in relation to private investment of bulk water supplies.

All this is not to suggest that water has not been valued in the past, even though in some quarters many household consumers may have regarded water as a "free" good.

However, water has not to date been fully valued or allocated efficiently. Australia is not unique in this. Throughout the world water supplies are underpriced and water scarcity is addressed through some form of non-price rationing, even today. Over the past 15 years or so, it has become clear that this approach has not served Australia well.

Undoubtedly, our use of water in the past has reaped great rewards in terms of the development of industries, the growth of the economy and the modernisation of Australia.

But there has been a cost, not just in terms of environmental degradation of productive land and river systems. There have also been costs in terms of lost agricultural production value, lost investment and increasing uncertainty about the availability of water.

The reasons for this have, in large part, been the over-allocation of water and the lack of effective mechanisms to trade water, exacerbated by the falling availability of water during Australia's longest and most serious drought.

Many people may regard water as a “special” good essential for life and which needs “special” treatment compared to other products. But there is no doubt that economic principles, the fundamentals of supply and demand, and the role of markets have at least as important a role to play in contributing to important social and environmental objectives as for any other product.

A good case in point is the Australian Competition and Consumer Commission’s roles in promoting the efficient and effective functioning of water markets for irrigators across the Murray-Darling Basin.

Under the *Water Act 2007* (Cth), the Commission was tasked with the development of rules and advice to the Minister for Climate Change and Water and the Murray-Darling Basin Authority.

Through this process, the Commission is promoting a water market for irrigators across the Basin that recognises the value of water as a scarce resource.

And that’s why I’m here today – to update you on the progress in delivering this task.

But to put this all in context, let me briefly examine the historical policy and legislative framework behind water usage and how this thinking has changed in recent decades.

### **Historical perspective**

As I said earlier, water resource policies since European Settlement were, like those relating to other resources, focused on promoting economic and population growth, and creating jobs.<sup>1</sup>

As with other industries, the 1980s saw a change in focus for water management. No longer was the focus on bigger dams to solve water issues, but rather, consistent with other microeconomic reforms of the time, options were being examined to improve the allocation of existing entitlements.

The objective behind this was to promote efficiency and equity in water allocation while protecting the environment.

By the 1990s, most of the available economic water resources had been exploited and the incremental cost of water supply was increasing sharply.

In response to this, conflict was starting to emerge between the old developmental objectives and newer economic and environmental objectives.

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<sup>1</sup>J Tisdell, J Ward and T Grudzinski, *The Development of Water Reform in Australia, Technical Report 02/05*, Cooperative Research Centre for Catchment Hydrology, May 2002, p. iii.

The incorporation of national water reform under the umbrella of National Competition Policy was recognition of the importance that water use should be at its most efficient and that environmental consequences could no longer be ignored.

### **COAG water reform**

As we know, the macroeconomic reforms of the 1980s included floating the Australian dollar, deregulation of the financial sector and abolishing most financial exchange controls.<sup>2</sup>

This increased the exposure of the agricultural sector to international fluctuations and competition.

Reforms were needed to improve the efficiency of the water sector.

In 1994, the Council of Australian Governments endorsed a framework of initiatives for the water industry to run over a seven-year period.

This covered:

- water pricing reform based on the principles of consumption-based pricing and full cost recovery;
- elimination of cross subsidies and making other subsidies transparent;
- clarifying water property rights;
- allocating sufficient water for environmental purposes;
- facilitating and promoting water trading;
- rigorous assessment of new rural water projects; and
- reforming water industry institutions.

The COAG water reform framework required the development of a comprehensive system of water allocations and entitlements.

By world standards of the day, and perhaps even today, the COAG framework represented ground breaking recognition of economic and market principles in water policy.

While the policy recognised that existing water allocations in the Murray-Darling were beyond a sustainable level, the policy did not seek to overturn these allocations.

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<sup>2</sup> Tisdell, p. 25.

Rather, the policy proposed mechanisms to recast these allocations into a more sustainable and secure property right on its own, separate from the traditional ties to land ownership.

With separate property rights to water allocations securely vested with irrigators, the policy then proposed the introduction of arrangements for irrigators to buy and sell water up and down the Murray-Darling Basin.

In addition, in October 1995, the Standing Committee on Agriculture and Resource Management developed the National Framework for the Implementation of Property Rights in Water.

These reforms were enhanced in 1995 when NSW, Victoria, South Australia and Queensland agreed to implement a cap on diversions as part of the Murray-Darling Basin Agreement, based on 1993-94 levels of utilisation.

The cap had the effect of requiring users to obtain additional water requirements through the market rather than through increased diversions under existing or new entitlements, thus taking a significant step towards sustainable water use.

The National Competition Council, established in 1995, was given the responsibility for assessing the progress of reforms.

Despite the successful implementation of many of the COAG reforms, many have not been fully implemented or implemented well. Further reforms were needed to increase the productivity and efficiency of Australia's water usage.

Delays and failures in reform implementation to date mean that we now face greater challenges than we otherwise would, and raise the imperative for the timely implementation of reforms in the future.

### **National Water Initiative**

In 2003, COAG agreed to refresh its 1994 water reform agenda by developing a new National Water Initiative.

The National Water Initiative – currently signed by all states and territories – was agreed as the national blueprint for water reform to provide greater for the water industry and provide long-term benefits for the environment.

Among other things, the Initiative set out reforms for best practice pricing and institutional arrangements. This included:

- promoting the economically efficient and sustainable use of water;
- giving effect to the principles of user-pays;
- achieving pricing transparency; and
- facilitating the efficient functioning of water markets.

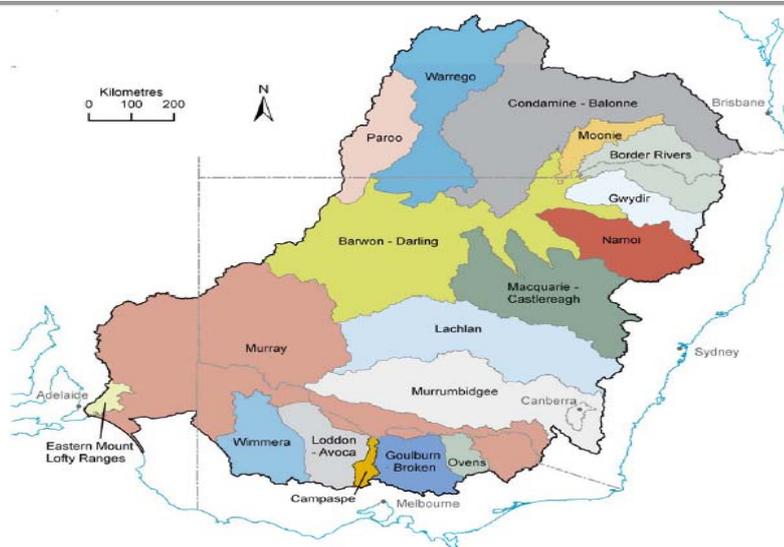
The National Water Commission was established to monitor the implementation of the Initiative, and produced a Biennial Assessment of progress in 2007.

This assessment stated that while there had been considerable progress in implementing the Initiative, progress could be enhanced in many areas such as over allocation, integrated management of the water system and urban water management.

### **Drought, climate change and the Murray-Darling Basin**

Let me now take a closer look at the effects of the drought on the Murray-Darling Basin – and how water reforms are playing a role in helping to reduce the costs of drought.

*Map 1 – The Murray-Darling Basin*



This map highlights the considerable size of the Murray-Darling Basin, spreading from Queensland, through most of NSW and a fair portion of Victoria, through to South Australia and the Murray mouth near the Coorong National Park.<sup>3</sup>

As we're all aware, the Basin is not only one of the most valuable river systems in Australia but has deep connections to the nation's wellbeing.

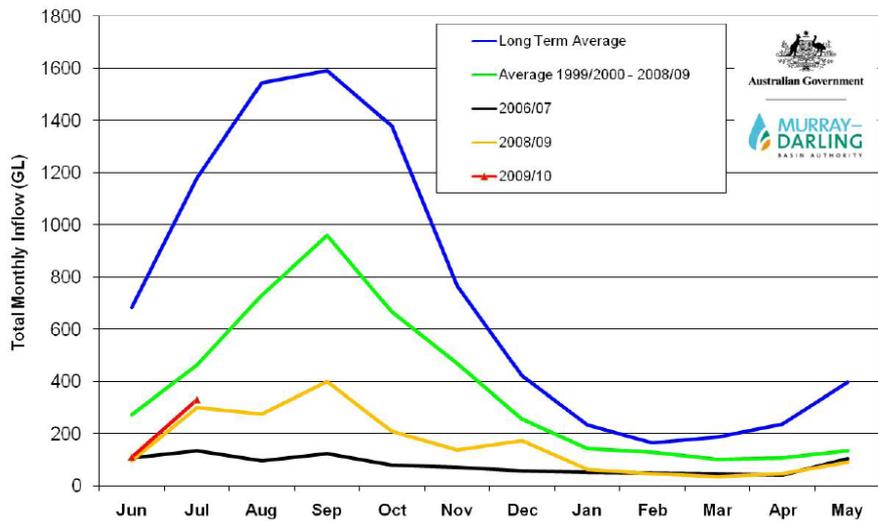
Each year, \$15 billion is generated by agriculture to the Australian economy with irrigated agriculture contributing a third of that share. Two-thirds of the nation's irrigated agriculture stems from the Murray-Darling Basin. This represents 20 per cent of Australian agricultural land and 40 per cent of all Australian farms.

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<sup>3</sup> CSIRO, *Water availability in the Murray-Darling Basin*, a report by the CSIRO for the Australian Government from the CSIRO Sustainable Yields Project, October 2008, <http://www.csiro.au/files/files/po0n.pdf>; map copyright of CSIRO.

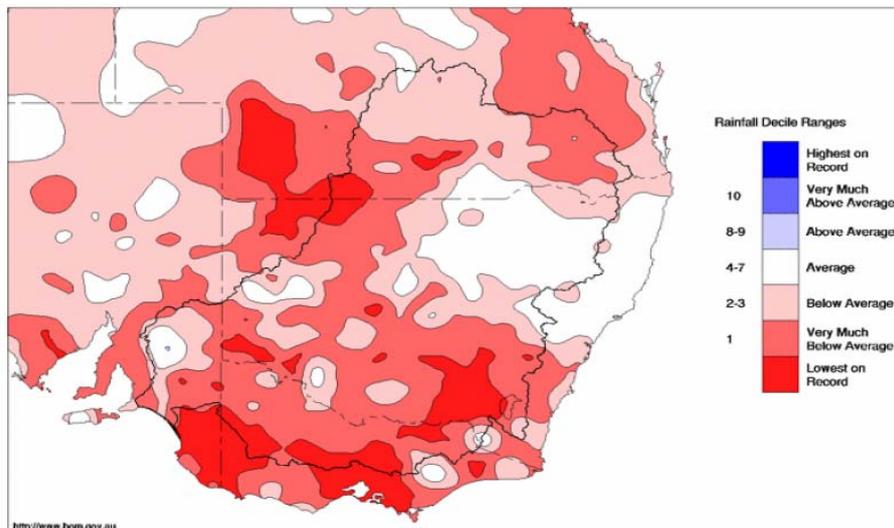
However, the Basin continues to suffer inflows well below historical averages.

Chart 1- Murray-Darling Basin inflows



As chart 1 highlights, inflows for the past 13 years have been well below average inflows with 2006-07 being the lowest on record. <sup>4</sup>

Map 2 – August Drought Update<sup>5</sup>



Now looking at Map 2, the heightened intensity of the red indicates below average to the lowest rainfall on record.

The lowest rainfall has occurred in many parts of the Basin, including close to Bendigo in Victoria, around Wagga Wagga in NSW and Hungerford in Queensland. <sup>6</sup>

<sup>4</sup> Murray-Darling Basin Authority, *River Murray System Drought Update – Issue 20: August 2009*, Murray-Darling Basin Authority, [www.mdba.gov.au/media\\_centre/drought\\_updates](http://www.mdba.gov.au/media_centre/drought_updates)

<sup>5</sup> Map sourced from Bureau of Meteorology, 2009.

The CSIRO predicts a substantial reduction of the availability of water across the Murray-Darling Basin by 2030 due to climate change and other factors.

Under a median climate change scenario, surface water will decline by 11 per cent in the Basin. Under current water sharing arrangements, flow at the Murray mouth would decline by 24 per cent.<sup>7</sup>

In such conditions, with water resources so scarce, it is even more important that water is allocated to its highest value use.

### **Water trading**

A well functioning water market can reveal the value of water to existing and potential users.

As the full value of water is realised, users are encouraged to seek improved productivity, innovate and improve water use.

For example in times of drought, permanent plantings such as fruits and grapes place a higher value on water used in production compared to annual crops such as rice.

On average, the returns generated in these sectors per ML of water used is higher – fruit \$1,276 per ML, grapes \$600 per ML compared to rice \$31 per ML.<sup>8</sup> Water markets can offer irrigators the means to get the water they need to sustain their crops.

Likewise, a well functioning water market provides a willing seller of water additional funds when agricultural production is not profitable. For instance, in times of drought, a rice farmer may find it more profitable to trade in annual allocations.

Conversely, in times of abundant water, the marginal value of water for traditionally higher value crops such as fruit and grapes may be low, reducing the market price of temporary water, making it more profitable to engage in rice production.

In both cases the end result is that we maximise the added value of water use.

Intrastate trading, in the Murray-Darling Basin has been possible from the 1980s and has increased significantly over time.

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<sup>6</sup> Murray-Darling Basin Authority, *River Murray System Drought Update – Issue 20: August 2009*.

<sup>7</sup> CSIRO, *Water availability in the Murray-Darling Basin*, p. 5.

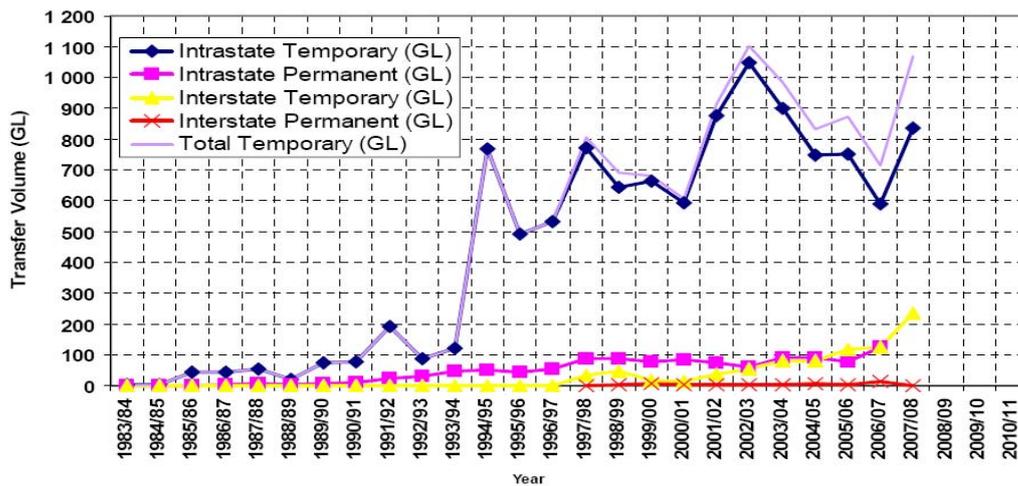
<sup>8</sup> S Hajkowicz and M Young (Eds), *Value of returns to land and water and costs of degradation, A consultancy report to the National Land and Water Resources Audit*, CSIRO Land and Water, Canberra, 2002, p. 66.

Conversely, interstate trading, has been, and continues to be, hindered by different state trading rules and barriers and as a result has had limited success since beginning in 1998.

Overall, intrastate trade still well exceeds the number of interstate trades.

Similarly, trade of seasonal allocations, otherwise known as temporary trading, exceeds permanent trades – where a water entitlement is permanently transferred to another person or entity.

Chart 2 - Murray-Darling Basin transfer volumes<sup>9</sup>



Source: MDBC October 2007.

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

To maximise the benefits of trade, the variety of rules and method for water management needs to be harmonised.

This is one of the reasons for more national involvement and coordination in the water management of the Murray-Darling Basin with the Australian Competition and Consumer Commission participating in this process.

### **Legislative environment**

Since 1886, legislative arrangements have established the principle that streams across the Murray-Darling Basin were state property administered by state controlled agencies.<sup>10</sup>

However, the river system does not recognise state borders, nor does the environment that depends upon it.

The *Water Act 2007* (Cth) was introduced to focus on specific reform options in the Basin, by adopting a national approach.

<sup>9</sup> Chart sourced from Murray-Darling Basin Commission, October 2007.

<sup>10</sup> Tisdell, p. iii.

The Act picks up much of the National Water Initiative, as the relevant core commitments in the Initiative are reflected in the objectives and principles of the Water Act.

In particular, the objects of the Water Act include:

- allowing the Commonwealth, in partnership with the Basin States, to manage the Basin water resources in the national interest;
- to improve water security for all water users in the Basin;
- to achieve efficient and cost effective water management and administrative practices; and
- maximising the net economic returns from the use and management of Basin water resources subject to ensuring environmental levels of water extraction are sustained.

### **The ACCC's functions under the Water Act**

The ACCC was assigned new functions from the Water Act in relation to the Murray-Darling Basin.

These include:

- Advising the Minister for Climate Change and Water on water charging rules and water market rules;
- Monitoring compliance with and enforcing these rules; and
- Advising the new Murray-Darling Basin Authority on water trading rules as part of the Authority's development of the Basin Plan.

The water charge rules and water market rules must contribute towards the development of an efficient water market by removing barriers to trade while protecting the interests of third parties and ensuring incentives for efficient investment remain.

I will briefly discuss each of these advices by the ACCC and provide some context as to how this fits with the national reform agenda.

### **Water Market Rules**

The water market rules took effect from 23 June 2009.

These rules allow irrigators to 'transform' water entitlements held on their behalf by operators into separately held statutory water entitlements.

Operators in NSW and SA typically hold a bulk licence to which its member irrigators hold an irrigation right against the operator.

Irrigators may wish to 'transform' their irrigation right into a statutory water entitlement which can be used for water trading.

The water market rules ensure that the policies of irrigation operators, who hold irrigation rights collectively for a particular region, do not prevent or delay irrigators from transforming their licence into a statutory water entitlement.

Most irrigators in Victoria and Queensland directly hold statutory water entitlements so the water market rules will have limited application in these states.

### **Termination Fee Rules**

The termination fee rules took effect from 23 June 2009.

These rules provide ongoing certainty to operators and irrigators over future delivery charges and infrastructure investments.

Reducing termination fees from historically high levels to more accurately reflect costs encourage efficient service delivery and promotes water trade.

The maximum termination fee, unless otherwise approved by the Commission, that can be imposed upon existing irrigators is 10 times the annual access fee.

### **Water charge infrastructure rules**

The Commission provided its final advice on water infrastructure charge rules on 26 June 2009.

We recommended a three-tiered approach for the regulation of water charges levied by infrastructure operators.

The regulatory arrangements range from transparency around pricing schedules and capital planning to regulatory approvals and determinations.

### **Water charge planning and management information rules**

The Australian Competition and Consumer Commission provided its final advice on water charge planning and management information rules on 10 July 2009.

The final advice recommended state government departments and agencies publish details of water planning and management charges.

The Commission also proposed the establishment of a voluntary reporting framework to report more broadly on water planning and water management activities, costs and charges.

## **Water trading rules**

The Commission released an issues paper on its advice on water trading rules on 6 March 2009.

Currently, we anticipate releasing a position paper on our water trading rules advice for public consultation in early September.

The Commission will provide draft advice to the Murray-Darling Basin Authority in December 2009, and provide final advice to the Authority in March 2010.

The Authority will then consult on its Basin Plan as a whole.

The Commission's advice will seek to remove inappropriate barriers to trade while providing appropriate protection for third party interests.

We recognise that irrigation communities are doing it tough with volatile commodity prices and very low water availability.

This impact is very real. In these times, water markets can offer irrigators the means to get the water they need and/or provide them with an additional source of funds.

As a combined force, the rules move towards efficient water markets and charging arrangements.

This will offer irrigators greater flexibility in managing their water needs.

## **Conclusion**

In 1996, the National Competition Council in its first Annual Report, said this about the COAG National Competition Policy water reforms:

*The reforms proposed extend beyond competition policy matters, and if fully implemented, will probably have a far greater impact on community welfare in the longer term (including explicit consideration of the environment) than any other measure.*<sup>11</sup>

Given the extent of the total National Competition Policy reform package, this was a big call. Nonetheless, I have no doubt that the statement was true then and it is true today.

Delayed and inadequate implementation of the water reforms have imposed large costs on the community and especially irrigators. As a result, today the reforms are even more urgent.

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<sup>11</sup> National Competition Council, *Annual Report 1995-96*, National Competition Council, 1999, p. 31.

In particular, we need a comprehensive set of arrangements in place throughout the Murray-Darling Basin to

- effectively vest property rights in water;
- encourage efficient water storage and delivery services; and
- provide for open trade in annual and permanent water rights throughout the basin.

While other reforms are also important, the Australian Competition and Consumer Commission's roles in relation to the Murray-Darling Basin are focused on these three things.

Our scarce supply of water means that water usage must be justified on the full range of economic grounds, including environmental, sustainability and climate factors.

A key contribution to meeting these competing demands is through the promotion of an efficient and effective water market.

Thank you.

### **Other sources of information**

Australian Competition and Consumer Commission, *Water trading rules: Issues paper*, March 2009,  
[www.accc.gov.au/content/index.phtml/itemId/863251](http://www.accc.gov.au/content/index.phtml/itemId/863251).

Council of Australian Governments, *Council of Australian Governments' Water Reform Framework, Communiqué*, Hobart, Tasmania, February 1994,  
[www.coag.gov.au/coag\\_meeting\\_outcomes/1994-02-25/index.cfm](http://www.coag.gov.au/coag_meeting_outcomes/1994-02-25/index.cfm).

Intergovernmental Agreement on a National Water Initiative: Between the Commonwealth of Australia and the Governments of New South Wales, Victoria, Queensland, South Australia, the Australian Capital Territory and the Northern Territory, 25 June 2004.

National Competition Council, *Assessment of governments' progress in implementing the National Competition Policy and related reforms: Volume 2: Water*, Melbourne, October 2004.

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National Water Commission, *National Water Initiative – first biennial assessment of progress in implementation*, October 2007, p.55.