

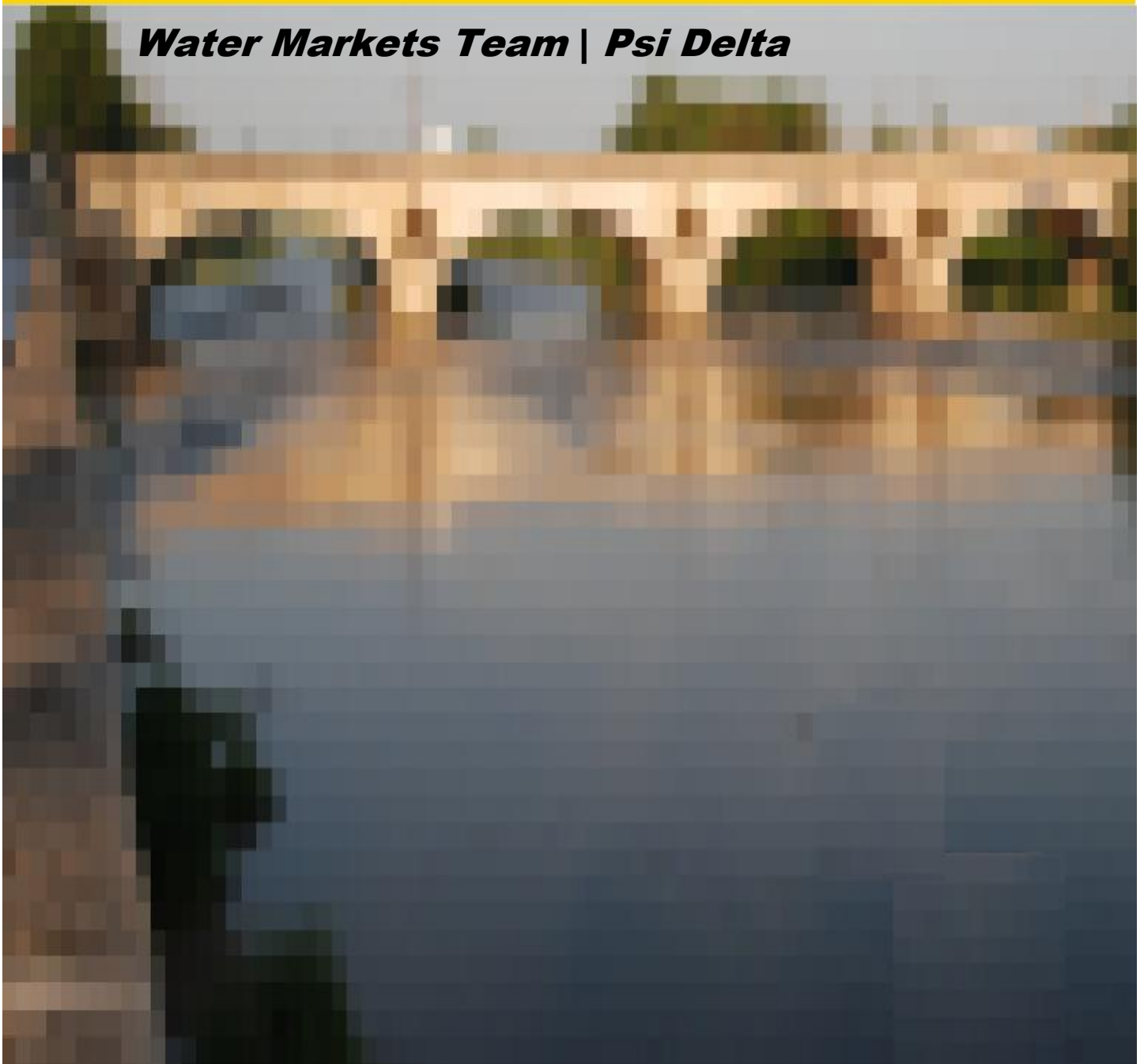


Waterdex™ 2010

WATER MARKET REPORT

October 2010

Water Markets Team | Psi Delta



Waterdex™

22nd September 2010

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Waterdex™ is an annual water pricing survey of permanent transfer general security water for all national systems over 90GL. The index reflects the competitiveness of water assets against other major indices, shows price trends around Australia, and provides insight into a complex water market through the expert advice of some of Australia's best water brokers. Waterdex is the weighted average of water entitlement (right) prices for all water systems in Australia where the total volume in the system exceeds 90,000 megalitres.

The Waterdex™ index has dropped sharply in the last 12 months showing a 21.4% decline, a much greater fall than predicted in many major systems. While we predicted a decline in prices over the last 12 months, the sharp fall in prices has been surprising. Caps on government buying and high rainfall across much of Australia's irrigation areas has driven prices down despite high crop prices and an improving economic climate.

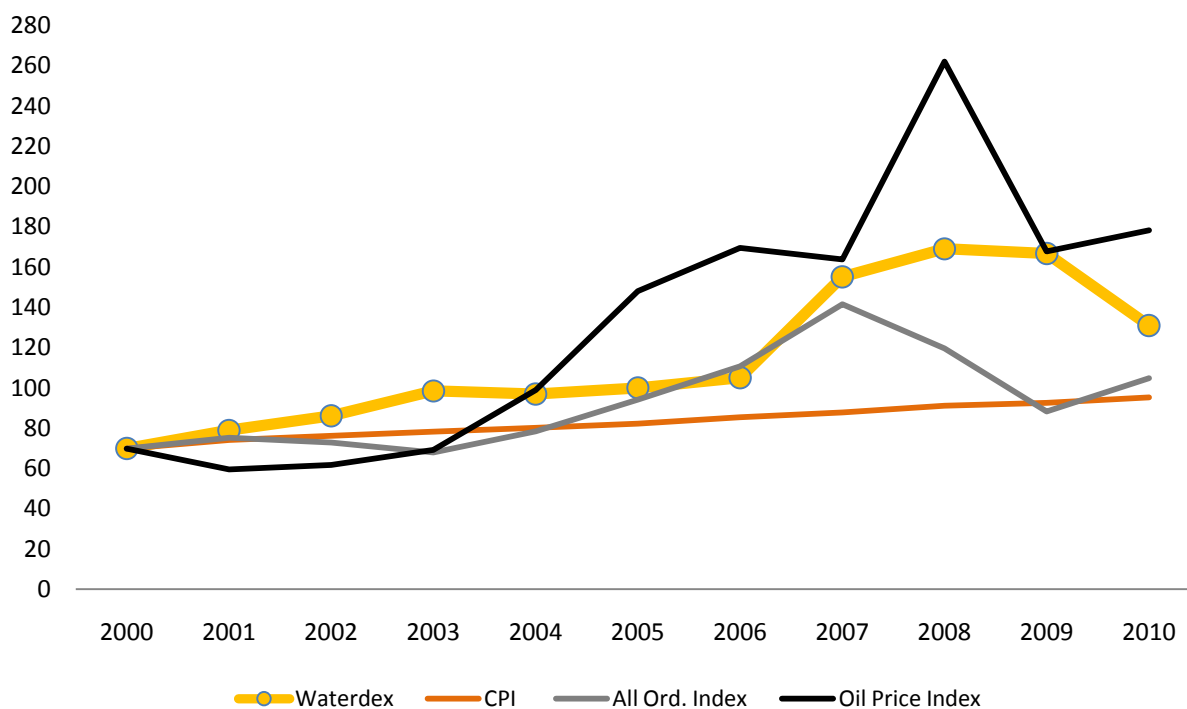
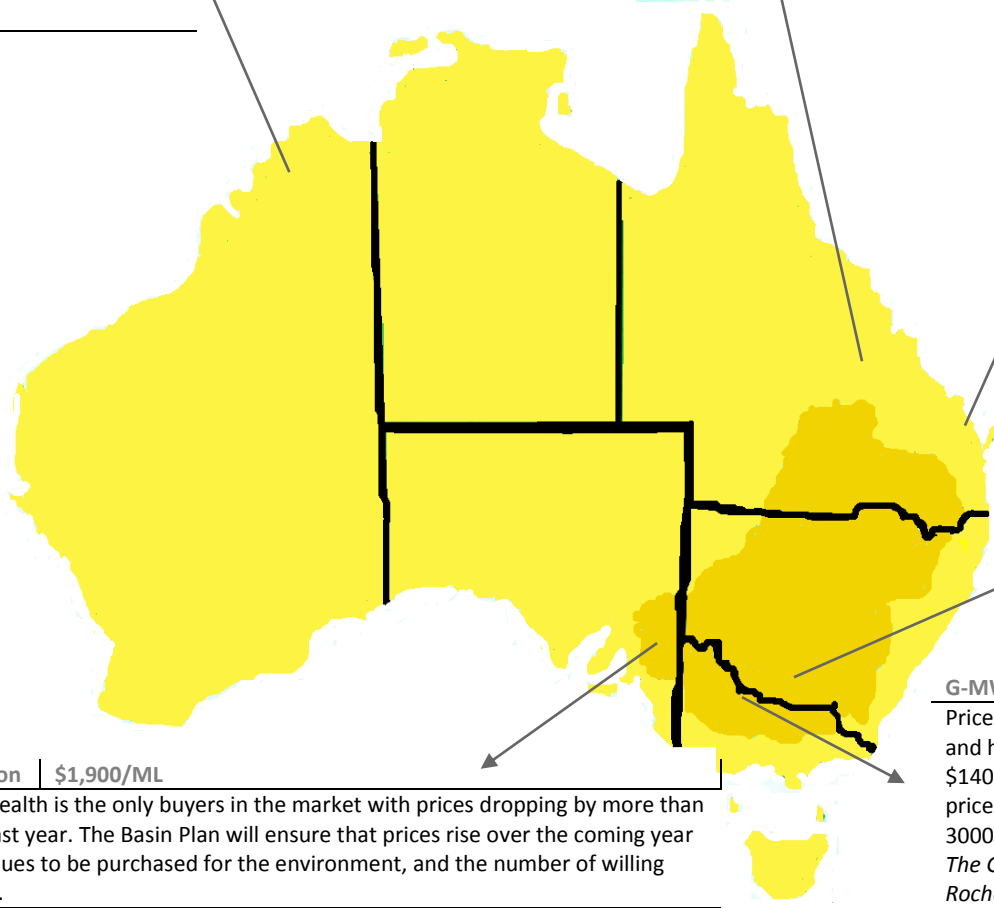


Figure 1 - Waterdex™ as of the 22nd September 2010

Ord Irrigation | \$100/ML
 Water remains at \$100/ML. The Ord is the only place in Australia with large water entitlements available very cheaply. Ord Stage 2 may see the cost of water increase as per hectare entitlements is reduced.

SW Nogo Mackenzie | \$2,000/ML
 Demand from miners is keeping Central Queensland water prices high despite recent high rainfall. With no Commonwealth buyback to compete with, the mining companies rule the market, converting medium security agricultural water into high reliability. Prices will stay firm as mining demand increases.

SW Bundaberg | \$900/ML
 Water prices have continued to increase in the Burnett. While large volumes of new entitlements are available from Paradise Dam, the value of water will not rise significantly



Murrumbidgee | \$800/ML
 Water prices in the Murrumbidgee have fallen since 2009-10 highs as a result of reduced buying by the Commonwealth. Market activity over the last few months has been limited to private buyers as a result of the NSW cap. Prices should rise as the Commonwealth searches for another 550GL to return to the environment in the Murrumbidgee.

Central Irrigation | \$1,900/ML
 The Commonwealth is the only buyers in the market with prices dropping by more than 20% over the last year. The Basin Plan will ensure that prices rise over the coming year as water continues to be purchased for the environment, and the number of willing sellers declines.

G-MW | 1,400 /ML (Shep)
 Prices in the Goulburn system have fallen 40% over the last year. Increased rain and higher allocations have seen prices collapse from a high of \$2400 to just \$1400. Increased government buying as a result of the Basin Plan should see prices begin to rise again as the Commonwealth looks to buy in excess of 3000GL.
The G-MW system includes Murray Valley, Shepparton, Central Goulburn, Rochester, Pyramid Hill, Torrumbarry, River Diverters

Trends and Predictions

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How has the water market performed

3.1 Murray Darling Basin

2009 Prediction: All systems within the Murray Darling Basin were expecting a decrease in the price of water from 2009 to now, with the exception of the Murrumbidgee where brokers were expecting an increase of **5-15%**. The main reasons for these declines are the slowing of the Federal Government buyback in NSW and the increase in the trade out limits in Victoria from 4% to 6% in 2010.

2010 Reality: As predicted in last year's Waterdex™ water prices have dropped over the last 12 months in all Victorian irrigation systems and many across NSW. The Goulburn Irrigation System in Victoria has seen a dramatic decline in water prices as the cost of water plunged more than 40% in the last year. Greatly increased rainfall and a slowing in government buying have resulted in cheap water throughout much of Victoria.

NSW has seen a decline in prices many systems but to a lesser extent than Victoria. As predicted last year, the Murrumbidgee Irrigation System has seen a small increase in water prices, as the Commonwealth continues to purchase water within the cap and many irrigators are reluctant to sell to private buyers due to the lower prices paid.

3.2 Western Australia

The isolation of the Western Australian irrigation system has seen it avoid the price plunge that has occurred in the Murray Darling. The Harvey Collie and Waroona systems have seen a large price increase as a result of record low announced allocations currently sitting at only 34%. The price of water remains at \$100 in the Ord Irrigation Area as water supply far exceeds available irrigable land. High water allocations of 17ML/Ha are expected to be sharply reduced for ORD Stage 2 which may see the price of water rise slightly; however water resources far exceed available land in the system so prices are likely to remain relatively stable.

3.3 Queensland

Prices have risen in the non-Murray Darling Basin irrigation areas of Queensland as demand from the mining industry continues to support water prices despite widespread heavy rainfall many irrigation areas this year. The Bundaberg Irrigation Area has seen prices rise slightly over the last year, however the high volume of new water entitlements available from Paradise Dam have effectively capped the price at \$900.

3.4 Climate

The most important factor in determining water values in all irrigation systems is rainfall. Brokers universally reported that weather was the key influence on water prices. The price of water has skyrocketed over the past decade as drought has devastated irrigation districts. Over the last year there has been heavy rainfall over much of the Murray Darling Basin, with widespread flooding in NSW and recently in Victoria. This rain has increased irrigator confidence for the future as irrigation storages and water availability rise. This increased

confidence and the availability of very cheap temporary water has seen the price of permanent water entitlements fall dramatically.

3.4 The Buyback

After climate the Commonwealth Buyback remains the most important factor in determining prices in the Murray Darling Basin. In a number of markets the Commonwealth is the only buyer and is effectively setting the market price. In other larger regions the Commonwealth underpins the price of water, keeping prices high until caps such as Victoria's 4% trade out limit are reached. Upon reaching these caps the price of water often drops sharply as only private buyers remain in the market. In all Murray Darling Systems, the highest prices achieved over the last year were for sales to the Commonwealth, before the caps were reached. Private buyers and sellers are aware that once the Caps are reached, prices and water availability will drop sharply.

The recently released *Basin Plan* will ensure the Commonwealth remains in the market for the medium term, the Federal Government's commitment to buy all water returned to the environment will likely see the price of water rise as the number of willing sellers decline.

3.5 Corporate investment

There is some interest in water as an investment but to date the most of the corporate investment is through organisations that have purchased agricultural enterprises with by far the largest being the Singapore based Olam group buying 40.8 GL of Timbercorp water. Water funds are said to be buying water but may need to wait for acceptable returns with Murray water having declines in asset value by 43.2% and annual returns through sale of temporary water having been improved by 100% allocations but total return much reduced by temporary water prices having dropped from prices above \$600/ML to \$60/ML. While this market remains small we expect it to increase over the next few years as private investors see opportunities to invest in a resource that is rapidly diminishing as a result of the Commonwealth Buyback. To date there has been interest from both local and foreign investors in Australian Water Entitlements and we would expect this to continue.

3.6 Predictions

Whilst water entitlement prices have dropped sharply in the Murray Darling Basin over the last year, the recent *Basin Plan*, and the Commonwealth's commitment to buying water for the environment from willing sellers, may result in the price of water rising over the next five years. The sheer volume of remaining water required that could be from 2,300-3,000GL will see prices rise as the number of 'willing sellers' diminishes. Heavy rainfall and improved irrigated commodity prices may reduce the number of motivated sellers, forcing prices up. Alternatively increased pressure from banks on heavily committed borrowers as a result of *Basin Plan* uncertainty may see an increase of sellers in the short term.

Over the next year we would expect prices to rise by 15%-20% as the Commonwealth Buyback increases momentum and the number of willing sellers declines, restricting supply.

Acknowledgements

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Psi-Delta would like to acknowledge the input from the following valuable associates. Survey response forms are confidential and those wishing to remain unknown have been omitted.

System (s)	Name
NSW Diverters: Murrumbidgee NSW Diverters: Murray NSW Diverters: Lachlan	Tom Wilks, Water Broker Wilks Water
NSW – Diverters: Gwydir	Cliff Brown
QLD – SW Bundaberg	Baden Lowrie Rural Property Specialist Elders Real Estate
NSW – Murrumbidgee Irrigation Area	Alister Watt, Water Broker Riverina Water Exchange
QLD – SW Mareeba Dimbulah	Peter Apel, Solicitor Apels Solicitors
SA – Central Irrigation	Brian Lock, Water Broker Elders Real Estate Loxton
VIC - G-MW Murray Valley, Shepparton, Central Goulburn, Rochester, Pyramid-Boort, Torrumbarry and River Diverters	Kris Brennan Planright
WA – Ord Irrigation	Geoff Stickland Ord irrigation
WA – Harvey, Collie River and Waroona Irrigation Districts	Harvey Water
NSW – Coleambally Irrigation	Anne Rzeszkowski

Broker's contacts from the following areas have been omitted at the broker's request

VIC – SRW Macalister
NSW – Murray Irrigation
NSW – West Cururgan
VIC – Sunraysia
NSW – Diverters: Hunter

NSW – Diverters: Macquarie
NSW – Diverters: Namoi
QLD – SW Nogoa Mackenzie
QLD – North Burdekin
QLD – SW Burdekin Haughton

Psi-Delta is a specialist consultant working in the commercial aspects of water and environment. The firm works around Australia and now internationally on water markets, economic and financial assessment of projects, water policy and project management. The Waterdex™ is Australia's first index of rural water prices and is Australia's only index covering all states with major irrigation activity.

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