Submission
No 19

INQUIRY INTO STATUS OF WATER TRADING IN NEW SOUTH WALES

Organisation: Argyle Group

Date Received: 12 July 2022

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12 July 2022

Hon. Robert Borsak MLC
Chair
Select Committee on status of water trading in NSW
By email: watertrading@parliament.nsw.gov.au

Dear Mr Borsak

Argyle Capital Partners Pty Limited (ACN 634 933 029) manages investments in water entitlements and irrigated farmland in New South Wales on behalf of institutional and other investors.

We have been active participants in NSW water markets since 2008.

We provide the attached submission detailing our water market activities for consideration by the Select Committee on the status of water trading in NSW.

We would welcome any opportunity to present more details of our experience in water markets.

We previously participated actively with the ACCC's inquiry into the water markets of the Murray-Darling Basin, including those regions in NSW.

Yours sincerely

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SCHEDULE 1

1 Introduction

Argyle Capital Partners Pty Limited ACN 634 933 029 ('Argyle'[1]) specialises in managing investments in Australia's agricultural sector, with a particular expertise in investments in Australian water entitlements and irrigated agriculture. Argyle is an active participant in the various water markets of NSW and across the Murray-Darling Basin.

Since May 2008, Argyle has managed investments in Australian water entitlements on behalf of institutional investors, family offices and high net worth individuals[2] from Australia and offshore. Argyle presently manages the Argyle Water Fund, a Strategic Australian Agriculture Fund, and water and irrigated farmland investment mandates.

Commencing in mid-2007, Argyle has sourced and deployed in excess of $1 billion of domestic and offshore capital in long term investments across rural Australia benefitting regional employment and industry development. We have completed direct farmland investments in a wide range of commodity sectors including citrus, almonds, annual row crops (cotton), dairy, macadamias, table grapes, vineyards, organic grains as well as in a fresh produce packhouse, grain processing, storage and handling facilities, water pipelines and a commercial solar farm dispatching to the national grid. In the majority of cases we invest via partnerships with family farming or corporate farming operators. In this way we are facilitating the development of Australia's agricultural sector and its regional communities, including in NSW.

Argyle manages $1.3 billion in water and farmland assets comprising approximately $1.1 billion (market value) of a deliberately diverse portfolio of water entitlement holdings across Victoria, New South Wales, South Australia and Queensland, within and outside the Murray-Darling Basin (MDB).

Specifically, in relation to NSW water markets, we manage the Argyle Water Fund, an investment management scheme operated as a unit trust offered to sophisticated wholesale investors (including institutions and high net worth individuals). At 30 June 2022 the Argyle Water Fund was invested in the ownership of a portfolio of 116,472 megalitres (ML) of water entitlements, diversified across several river systems and mostly within the MDB. Of this total, 62,961ML are issued in NSW.

Argyle also manages a separate portfolio of water entitlements on behalf of a large Australian superannuation fund ('Mandate Investor'). At 30 June 2022 that portfolio was invested in 135,186ML of water entitlements in the MDB and other river systems in Queensland. Of this total, 31,563ML are issued in NSW.

Argyle's water entitlement portfolios have been patiently accumulated since August 2012. Collectively they represent less than 3% of water entitlements on issue across the southern MDB.

Argyle is required to generate returns from the invested water entitlements and does so by leasing entitlements to irrigators, and otherwise selling water allocated to its entitlement portfolio throughout any Water Year (July to June) using forward contracts, spot water contracts and carry-over water contracts.

Deliberately as a part of its investment protocols and disciplines, Argyle does not engage in buying water allocation volumes throughout any Water Year which would otherwise compete against our farmer irrigator clients' needs to secure water for their irrigation enterprises.

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[1] The investment management business was first established as Blue Sky Water Partners in 2007 and became a subsidiary of Blue Sky Alternative Investments Limited in 2012. Following a management buyout in July 2019, the company was renamed and operated as Argyle Capital Partners.

[2] Qualified "wholesale" and sophisticated investors

Argyle does internally transfer water allocations within its own portfolios as a means to position its water allocation volumes for greatest benefit for its portfolio returns, and to supply water allocations to irrigators in the regions in which they are most needed (as signalled by market prices in each region). Each transfer is subject to approval and registration with the specific state government water authorities. In the public record, this appears simultaneously as a ‘sell’ in one river zone and a ‘buy’ in another connected river zone.

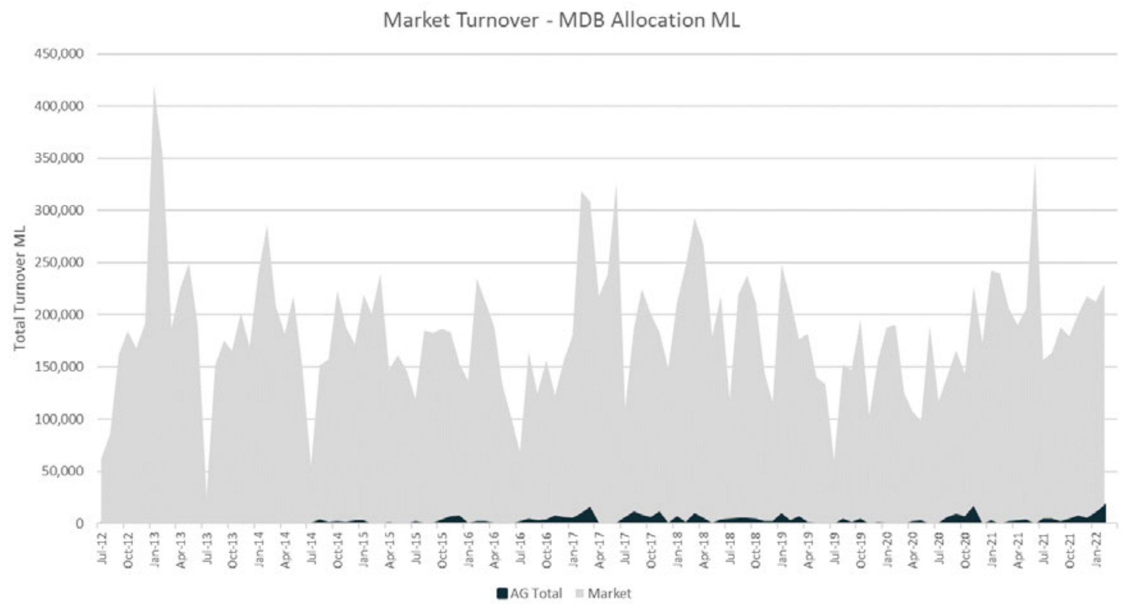
In practice, Argyle simultaneously requests the particular state government water agency to transfer of water allocations from one of Argyle’s managed water allocation accounts to another (which may be pertaining to a different water trading zone or intervalley region). Argyle previously reported these as zero-dollar transfers to distinguish them in the register as internal transfers, and following recent changes to the NSW water registry system, can now designate those as related party transactions. There is no net effect on market prices as a result of the transfers.

Argyle is a disciplined and active manager of various risks within its water entitlement portfolios including the risk of unpredictable annual variations and seasonal changes in water supply and demand (influenced by rainfall, temperature, evaporation, crop areas planted) throughout each Water Year.

A large component of the portfolios’ water entitlements by value and volume (comprising mostly higher reliability classes) are leased to a diverse range of irrigators engaged in dairy, rice, cotton, wine grape, table grape, almond and citrus production.

After allowing for the extent of water entitlements leased to irrigator counterparties, we contend that Argyle has a very limited ability to influence the price of water allocations transacted in various NSW water allocation markets.

The proportion of registered traded water allocation volumes in the MDB represented by Argyle is reflected in the chart below (this does not capture the volumes of water allocations transacted within Irrigation Infrastructure Operators who maintain an internal market amongst their clients/shareholders).



Argyle’s agricultural investment funds are invested in a range of irrigated cropping enterprises. Consequently, from time to time those agricultural enterprises will engage in water markets to sell water entitlements, lease water entitlements, forward contract the supply of water allocations for future delivery and/or purchase and sell surplus water allocations in spot markets. Decisions in relation to those water market activities are entirely made by the particular farming enterprise and its management team.

From time to time the Argyle Water Fund or Mandate Investor portfolio will be a counterparty to farmland enterprises which are invested by Argyle's agricultural investment business. Any cross-dealings between these various entities are conducted completely at arms' length and at fully commercial terms. Those dealings are documented, disclosed in full to relevant parties and subject to internal and external review (audits).

2 Responsible Investment

2.1 Our approach

Since its formation Argyle has pursued a responsible investment approach reflecting the personal experience of our founders and existing management team. We have been engaged in Australia's agricultural sector over many decades of commodity and climate cycles; have grown up on farms; pursued careers as agribusiness professionals; prefer a partnership approach with qualified farmland operators; and have a deep respect for regional communities and the people and industries they sustain. We also respect the return requirements of our various capital sources which we have strived to attract to the agricultural sector for well over a decade.

Specifically, in relation to our role as a capital provider and long-term water market participant Argyle:

- Does not seek to become "the market". We do not want to artificially influence prices or pay more for assets than other irrigation farmers can afford to pay.
- Does not invest in more than 10% of Water Entitlements on issue in any region / sub-region / type of entitlement on issue.
- Does not have more than 20% of its available capital invested in any one region / sub-region / type of entitlement[3].
- We target the most "liquidly traded" water markets. We are required to value our portfolios to market each month and this is more readily achieved where there is sufficient annual turnover in water entitlements and water allocations.
- We actively manage risk throughout the Water Year through our water allocation sales activities. We can't predict the weather. We have no better idea than any other market participant regarding annual weather patterns, rainfall events or drought periods which influence water allocation prices year on year and throughout any Water Year. Australia's weather is unpredictable. Rainfall events markedly change water allocation prices both in terms of available water allocation supply and immediate irrigation demand.
- We lease Water Entitlements, we sell water allocations forward, we sell water 'spot', we carry-over water (deferred delivery).
- We do not hoard water allocations. We are required to generate annual income via the management of our water entitlement portfolio in order to satisfy investors; we must lease the entitlements or sell the water allocations to do so. We actively manage the risk of our water entitlement positions daily and throughout the year using a combination of methods to derive investment income from water allocated to the portfolio.

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[3] Measured at the time of making a new investment but may be distorted over time through capital appreciation of the assets which we already manage.

- We don't discriminate about which irrigators we sell too. We operate via private treaty deals across each regional water market; directly to larger irrigators and via a panel of regional water brokers.
- We do not buy allocations in our water portfolios unless by agreement with an irrigator to carry water over to a subsequent Water Year *under a matching forward water allocation sale contract*. We consider that we are 'long' water enough without adding risk to our portfolio by purchasing additional water allocations. If we have contracted via a forward agreement to deliver a specified volume of water to another market participant, and we believe we may be at risk of not being able to supply that volume, then we may resort to buying that volume in the market. However, we have rarely, if ever had to resort to that strategy due to our consistently applied risk management methodologies and inherent conservatism.
- From time to time when water allocation prices are inexpensive *(reflecting abundant supply)* and towards the end of a peak irrigation period we may buy water to carry over on our own accounts to the next season. We have done this in the past, but only where we have forward sold a corresponding water allocation volume for a future delivery in the subsequent Water Year. If we were to do otherwise, we would assume a risk that water prices remain low and Winter/Spring rains are substantial (e.g. 2016, 2022); in which case we would have even more water to sell at otherwise even lower prices reflecting an abundant supply (and simultaneously lower irrigation demand).

Argyle's investments in Water Entitlements are providing patient capital to develop irrigation farms and use scarce water for its highest and best purpose; it is not being wasted. It is being valued appropriately, reflecting its scarcity, and traded to its highest best use.

2.2 Our purpose

Argyle's business was founded in South Australia in 2007 as a private company by a group of like-minded agribusiness professionals seeking to raise private capital to invest in the development of Australia's agricultural resources.

Argyle is motivated to source, invest and manage institutional capital to develop secure and reliable food and fibre supply chains servicing the significant expansion of Asian export markets catalyzed by bi-lateral free trade agreements and supported by increasing per capita wealth across the region.

We were particularly encouraged to invest in water entitlements following the adoption of the 2004 National Water Initiative; the creation of secure legal titles to a share of specific water resources; and, the unbundling of water licences from land titles. The creation of secure titles to a defined share of available water supplies represented the catalyst for the further development of permanent cropping areas in the MDB. The prior regime of 'water licences' was not sufficiently secure to encourage large capital investments in the development of permanent vine and tree crops without an underlying security of title to water resources to ensure their survival over multi-decade periods.[4]

Argyle seeks to provide a new source of capital for farmers; to restructure their balance sheets (separating water ownership from use of water) and liberate that family farm capital to re-invest in the development of more highly productive farms with more efficient and more profitable use of that water. The water continues to be used for agriculture, but increasingly it is being directed through efficient markets to higher value farm enterprises.

Converting farms to higher value enterprises required new sources of capital beyond the resources of most family farms and their traditional bank lenders. Argyle has sought to provide that capital and invent investment

[4] Illustrated in separate ICM Agriculture cases vs NSW and The Commonwealth 2009

structures which preserve the family farmer's ability to continue to manage their operations and indeed benefit from scale economies and water use efficiency.

Argyle has contributed to the ability for certain irrigation farmers to pay more for water as a key input than they previously would have afforded. Those farmers have transitioned their enterprise mix and/or increased their farm productivity which has substantially increased their capacity to pay for farm inputs, including water. Argyle has facilitated a transition of water from lower value to higher value use consistent with the principles of the National Water Initiative. Argyle has assisted farmers to achieve 'more crop per drop', and provides a range of tools for farmers to manage their water supply and price risk (leases, forward allocation sales, carryover parking).

Argyle's approach has been entirely consistent with the principles of the 2004 National Water Initiative to encourage scarce water to its highest and best use. We believe in and support the requirement of honest, efficient and fair dealing in the market for Australia's most limiting agricultural resource.

Argyle has actively promoted improvements in the governance, transparency and liquidity of Australia's water markets since 2007 consistent with the principles of Australia's National Water Initiative, various state government water frameworks and the objectives of the Murray Darling Basin Plan to ensure the sustainability of the resource.

2.3 Argyle's strategy

Argyle has deliberately invested in a portfolio of water entitlements across different geographies (trading zones, State jurisdictions, water sources) and security classes (high security/reliability, general security, low-reliability).

Argyle operates within its own investment constraints as to portfolio diversification (eg, not having more than 20% of capital invested in any one entitlement type/region), liquidity (both of water entitlements and water allocation trades), and risk regarding annual income generation given the variability of water supplied for any entitlement type across a range of highly variable seasonal rainfall conditions.

Unlike most irrigator owners of water entitlements, Argyle is agnostic as to what entitlements it will invest in.

Argyle considers the entire Australian water entitlement universe and applies its own proprietary methodology to determine which entitlements it will target for investment according to its risk return appetite.

Most irrigators are farming in a particular region and therefore require supply of water from a limited set of water entitlements which are able to service that farming district.

Argyle does not have to confine its entitlement investments to such geographical constraints. If a particular region is not considered favourable for investment, Argyle can deploy elsewhere amongst over 300 different water entitlement types Australia-wide.

Argyle accepts that there are a range of restrictions on trade of water entitlements in any regional location and indeed considers each region to have its own 'market', not one central 'market' of the Murray-Darling Basin. Such constraints can be considered as risks to inter-state, inter-regional or inter-zonal trade. It is Argyle's view that the market will ascribe different values to specific water entitlements in each zone, State, and security class reflecting those constraints. Those risks are therefore priced in the value of the assets themselves.

We actively manage our water entitlement portfolios each Water Year, in regard to the actual and expected water allocations announced; the extent to which the water entitlement portfolio may be leased to irrigator counterparties; the extent to which we will sell water allocations forward, carryover or sell spot water allocations progressively through the Water Year to generate income and investment returns for its investor clients.

In general, those opportunities will reflect the dynamics of water supply and demand in any period. Inter-valley or inter-zone trade opportunities will be signalled by large price differentials reflecting the specific need for irrigation water supply in a particular region. The price differential is a signal for the market to seek to solve for water supply in an adjacent/connected zone or river system by transferring water from one zone to another or via intervalley trade.

3 Water markets – challenges and idiosyncrasies

Water markets are conducted by private treaty. All trades (or transfers, except within IIOs) have to be approved by state government water agencies (and titles agencies). The markets are not centrally 'cleared'. There is no one 'water market; rather a series of regional markets for water, each with their own supply and demand dynamics.

3.1 Arbitrage opportunities across regions

There are several idiosyncrasies which arise from different regulatory regimes applied to the same river system (specifically for NSW, the Murray River, Border Rivers). Each of those creates arbitrage opportunities and may create some temporary market price distortions from time to time. For example:

- carryover rules between Victoria (100%+ carryover against Low and High Reliability Water Shares) subject to spill risks and 5% evaporation reductions year on year; NSW Murray 50% carryover with no evaporation reductions, but subject to constraining future year allocations to the extent of not more than 110% of allocation volume; South Australia previously nil capacity to carryover.
- different water access rules. Specifically, South Australian irrigators can draw water from the river or IIO without having a positive water allocation account balance provided they balance their accounts by the end of each quarterly period. SA irrigators could previously do this with only a requirement to balance up at the end of each Water Year. Rules have been amended to ensure this now happens at least quarterly. In other states, irrigators must maintain positive balances in their water accounts at all times, else risk large fines and 'lock outs' from the IIO delivery system.

These idiosyncrasies are known to those who have taken the time to educate themselves about the different rules and regulations and have a capacity to arbitrage those differentials. In doing so, the arbitrage itself tends to correct market distortions quite rapidly.

3.2 Use of water brokers

There is no necessity or compulsion to use an intermediary - water broker, water broker portal or exchange to conduct a water transaction.

Every trade by Argyle is conducted on an arms' length basis at prevailing market rates. Trades are not necessarily dealt through Water Brokers or Water Exchanges.

Argyle may elect from time to time to deliberately use Water Brokers to facilitate sales of water allocation. Argyle understands and appreciate the market intelligence and services Water Brokers can and do provide, particularly where Argyle does not have first-hand on-the-ground relationships with individual family farming operations. Argyle considers the merits of engaging Water Brokers on this basis and seeks to maintain good working relationships with those trusted brokers.

Argyle acts on its own behalf for all water transactions. As a fiduciary it does not enter into agreements with Water Brokers to act as principal for any transaction.

From time to time Argyle does offer parcels of water allocation for sale to particular customers first but always at arms' length market traded rates. In fulfilling its fiduciary duties, Argyle must be able to evidence market traded rates in order to justify any transaction, even with a related-party.

Argyle enjoys direct relationships with a number of irrigation enterprises, both related parties and third parties. We seek to solve for irrigator client water supply requirements and do so via direct negotiation. Often this is preferred by those counterparties on account of Argyle's scale efficiencies (ability to offer 1,000+ML parcel sizes for sale in one transaction). This can benefit both Argyle and the irrigator buyer. The buyer achieves efficiency of transacting larger volumes in one transaction which would otherwise require many more transactions in a brokered market, and Argyle avoids brokerage. From time to time Argyle will achieve a marginal sales premium for the convenience offered to the buyer.

3.3 Market transparency: Bid / offer spread

Members of our organisation have been participants in Australia's various water markets since the early 1990s. We have also had considerable experience in cotton, grain, sugar, wool, citrus, wine grape, table grape, electricity and foreign exchange markets.

In our experience the allegations of a 'lack of transparency' are better explained by an examination of the fundamentals and mechanics of those various water markets in practice.

Broker portals and other exchanges compile and display bids and offers for prospective purchases and sales of water allocations. In almost all daily observations, and by comparison to most other markets, the spread between bids and offers is wide. This is not a failing of the transparency of the markets, rather it is an indication of the illiquidity of the markets.

As an example, on 28 October 2020 one of the more prominent on-line broker exchanges for the market zone with the greatest annual turnover, Victorian Murray Zone 7 quoted buyers' bids from $180/ML and sellers' offers from $220/ML. That represented a $40/ML bid/offer spread; a margin 20% above the bid. Consequently, depending on their willingness to cross that spread, two farmer irrigator as buyers on the same day in the same market zone might get filled at very wide price differentials (purchased water allocation at $220/ML, or patiently waited for a seller to accept a bid at $180/ML). It is quite conceivable that later that day one irrigator who paid 20% more might then complain to the other that the markets are 'not transparent'.

This is not a reflection of transparency. It is a reflection of illiquidity.

The illiquidity of the water markets reflects the challenges of conveyance and storage of fresh water (market making, taking delivery, storing and reselling are costly and challenging); the similar motivations of the majority of its participants; and, the nature of water as a *non-substitutable* input for any farming enterprise.

3.4 Non-substitutable input

The vast majority of water market participants are irrigation farmers. Year on year and over various climate cycles water tends to be their most limiting factor of production. In times of severe drought, the cost of acquiring irrigation water can escalate dramatically. A higher water price does not create new sources of supply and there is no substitute for water. No amount of money can make it rain. If all farmers are seeking to buy, there may be increasingly fewer sellers as water is offered and used up. In those circumstances bid/offer spreads will widen and spot price volatility will likely increase.

3.5 The motivation of market participants

As the ACCC report reveals, there are only four major 'investors' in water markets accounting for 6% of water entitlement ownership and up to 20% of water allocation sales by volume.

The vast majority of entitlement holders are irrigators (family farmers to corporate agribusiness).

Many of the corporate agribusinesses manage their water supply via leases, forward contracts, spot purchases and carryover parking with the 'investors' as counterparties.

Within a particular region, irrigators may be involved in the production of similar crops with similar gross margins per megalitre achieved (eg. cotton or rice production). In that case they may have similar capacity to pay for water allocations as required. Assuming they have a crop planted, an unexpected heat wave might encourage them all to purchase marginal megalitres of water to meet increased crop water demand. In that situation, there will be a flurry of bids for water allocation in that region and often few willing sellers (as irrigators will all have suffered unexpected water use and 'investors' may have exhausted their inventories with prior sales and leases). In this situation, water allocation prices may increase rapidly until the point where some annual crop irrigators may assess that they could be adequately compensated to abandon their annual crops and sell remaining water allocations they have not yet already applied. This scenario reflects the conditions experienced in the NSW Murray and Murrumbidgee rivers in 2018/19.

3.6 Motivations for water trade

As stated above, Argyle actively manages its water allocation position which is derived from its ownership of water entitlements not already leased to irrigator counterparties. On principal, Argyle does not engage in the purchase of water allocations to speculate on rising water allocation prices. Argyle is fundamentally 'long' water allocations in any Water Year and does not seek to increase its 'long' exposure and price risk for the purpose of speculating on future drought or rainfall events which are not predictable.

At any point in time, and deliberately on a weekly basis, Argyle will examine its water allocation position across its portfolios and determine and carry out its strategy to sell water allocations to derive income for the portfolio which ultimately will be distributed to Fund investors. Argyle manages week to week the risk of water allocation announcements throughout any Water Year, the demand profile from irrigators and expectation of changing seasonal conditions which directly influence water allocation supply, demand and price of Trades.

Through its own disciplined processes Argyle may determine to sell a particular volume of water allocations in any one weekly period. Depending on the volume and region that Argyle will seek to sell allocation, it may first approach a number of direct customers (related party and non-related) with offers to sell direct. Those counterparties are typically well informed of the water market and their own operational water allocation requirements. They will judge whether to engage or not in trade with Argyle as vendor in spot or forward transactions.

3.7 Water 'trading' vs water transfers

'Contracts' between water allocation buyers and sellers (if they even exist) are not captured in water registers.

The registers are only concerned with transfers of water allocations between water allocation accounts within that state jurisdiction; eg moving water 'credits' from one water account balance to another water account balance. We see little value and much administrative cost for registers to seek to capture and register 'contracts' between those buyers and sellers.

There is no point to regulate intermediaries if transactions between buyers and sellers are conducted by private treaty and without intermediaries.

Water is governed by state jurisdiction. Each Basin State has its own regulatory regime and legal framework. Most are quite harmonised, but they are not interchangeable. History has shown that Basin States are unlikely to implement identical water regulations, including to conform with a specific and consistent trade processing method for water transactions.

3.8 State based water transaction registers and market information

The state-based registries record all transfers of water entitlements and water allocations. Many of these transfers are not in fact 'trades' at all; merely a transfer of water allocation (or entitlement) between related parties; including the transfer of water allocations held by environmental water holders.

Victoria, NSW and South Australia have recently commenced the implementation of a number of changes to the reporting of transfers which will better capture the reason for those transfers (trades or not) and a more accurate chronology of those trades (not simply a registration date, but the date the counterparties agreed the transfer). The constraints / shortcomings of transfer application forms have been repeatedly identified since at least 2010. As a regular market participant, we look forward to better quality information being captured and provided via government registries through these latest initiatives.

It should be recognised that this information is 'after the fact'. It is the product of market transactions. Historical price/volume information is a record of previous trading activity, it is not a guide to future price and trade behaviour by market participants. Historical price and volume information is not as useful to inform participants as to whether a proposed transaction is 'fair and reasonable'.

Water allocation markets are very dynamic – historical price information is not so useful to inform daily decisions when competing and changing in-season crop demands, *anticipated* rainfall, evaporation, and anticipated temperatures are impacting actual demand and supply for irrigation water.

We suggest there is greater benefit to market participants through the provision of information in relation to:

- regional water supply including forecast supply (water allocation announcements) under different rainfall conditions; the volume of water allocations announced year to date; the volumes of water allocation used/applied year to date; the volume of supplementary water pumped/taken; the carryover volumes accessed year to date; conveyance volumes and constraints from region to region (zone to zone); and

- regional water demand including the relative returns for various competing crop enterprises; the relative scale (planted area and maturity profile) of various crop enterprises (annual and permanent); their resulting aggregate irrigation requirements year on year etc.

Understanding and assessing those dynamics will better assist market participants to manage risks and identify opportunities. It would allow participants to better adjudicate as to what is a fair and reasonable price for them to transact water allocations (and water entitlements) on any day given their own risk appetite.

In other Australian agricultural commodity markets, there are numerous market analysts / consultants who provide this information on a user pays basis. Commodity brokers (and real estate agents) provide similar information to market participants for commission on sales. Water brokers perform this same role. Over time, those brokers with more accurate, timely and beneficial information will accrue more clients and a greater share of brokered trade. They may have a capacity to charge a higher commission for their role in intermediation. We see no need for government regulation to achieve this outcome; rather it is a function of a market which is continuing to mature.

3.9 Water transactions within IIOs

As IIOs are bulk water entitlement holders, they can and do facilitate trade within their IIO amongst their own members. The volumes of water allocation trade within the IIO does not have a direct bearing on participants outside the IIOs. All water allocation trades into and out of IIOs are captured by Basin State registries. That information is also available.

IIOs facilitate ‘water entitlement’ trades within the IIOs, representing their members ‘shares’. Those transactions do not necessarily impact water entitlement transactions outside the IIOs.

Members of IIOs who participate in internal transfers of ‘water entitlements’ and water allocations do need to satisfy themselves as to value relative to transfers to and from the IIO.

We assume IIO members do inform themselves of their ability to trade in and out of the IIO if there is a more competitive bid/offer available from outside the IIO, in which case the market outside the IIO will transact (and price and volume will be captured and registered).

3.10 Centralised ‘water market’

We support initiatives to create more efficient mechanisms to process water entitlement and water allocation transfers and transactions within and between Basin States (where there is an ability to transfer water).

A centralised ‘clearing house’ or single common register to assess transfer applications may create efficiencies for each state government water agency / registry and enable swift information capture. However, we believe each Basin State is most likely to maintain their own processing capacity given their specific jurisdictional responsibilities for water.

The practicalities of the water markets must be considered. There is no one market; there are many regional markets each with their own idiosyncrasies. Furthermore, in the case of water allocations what is being transacted represents water as a physical commodity capable of being delivered from a specific resource.

There are many challenges and physical constraints involved in conveying water between different parts of a river, channel or piped irrigation scheme. That challenge is compounded when transferring across rivers in the same State, and even further to transfer between rivers and Basin States. Each application for transfers (trades) has to be considered in light of these constraints. Transacting, clearing and settling water transactions are not as simple as electronically matching buyers and sellers of ‘paper’ equities for electronic funds transfers via the ASX and its clearing house (which guarantees brokered trades).

Nor are water transfers easily facilitated to the extent of real-time automated matching of buyer/seller offers in the National Electricity Market (with hundreds of very sophisticated, well capitalised energy buyers and generator sellers each with dedicated electricity trading teams monitoring and arbitraging minute by minute opportunities relatively seamlessly). Electricity transmission is comparably instantaneous in the connected national grid (albeit within constraints of transmission line capacities, which are relatively more easily and affordably increased when new demand comes on line in a particular location, as opposed to expensive channel / pipe conveyance for water).

As ACCC’s report pointed out, we are reminded of earlier failed attempts by government agencies to create a digital solution to harmonize water market information at considerable expense. Several private agencies (usually water brokers) have sought to fulfil this role in water markets since the mid-1990s. In our view there is plenty of information available from a wide range of sources, and this is identified as part of the issue which may cause irrigators to bemoan a lack of transparency. Different broker portals conduct different transactions between buyers and sellers resulting in different daily price ranges.

3.11 Derivatives: applicability to water markets

Argyle does not trade in any over-the-counter water allocation options and is not aware of any water allocation futures markets.

Argyle's management team (specifically Mr Kim Morison) has decades of experience in agricultural commodity futures and options markets including making participating in exchange traded and over-the-counter derivatives in cotton, grains and sugar markets in Australia and globally.

Argyle has previously considered the opportunity to provide or facilitate over-the-counter or bespoke put and call options on forward water allocations. There are several challenges to the emergence of these products:

- The depth of any market is limited on account of their specific regional locations (there are many markets).
- There is a massive bid/offer spread which makes it difficult and costly to price the risk of dynamically hedging a derivatives position as a potential market maker (eg. seller of call or put options)
- The greatest challenge in offering such products is that water allocation pricing is not normally distributed and has incredible 'tail risk'. Water is not substitutable at any price; fresh water in a particular location cannot be purchased if there is none available.
- The fulfilment of derivative contracts cannot simply be cash settled when the market will be conducted with irrigators who will ordinarily require water, not cash. At expiry, there are likely to be large disputes on the settlement rates when bid/offer spreads in adverse events might be hundreds of dollars per megalitre apart.

Consider Figure 2, which illustrates an example spot market in Murray River Zone 7 (at 8 April 2020) where on one leading Water Exchange the bid/offer spread is $35/ML apart and in Goulburn River Zone 1A over $194/ML difference in bid and offer.

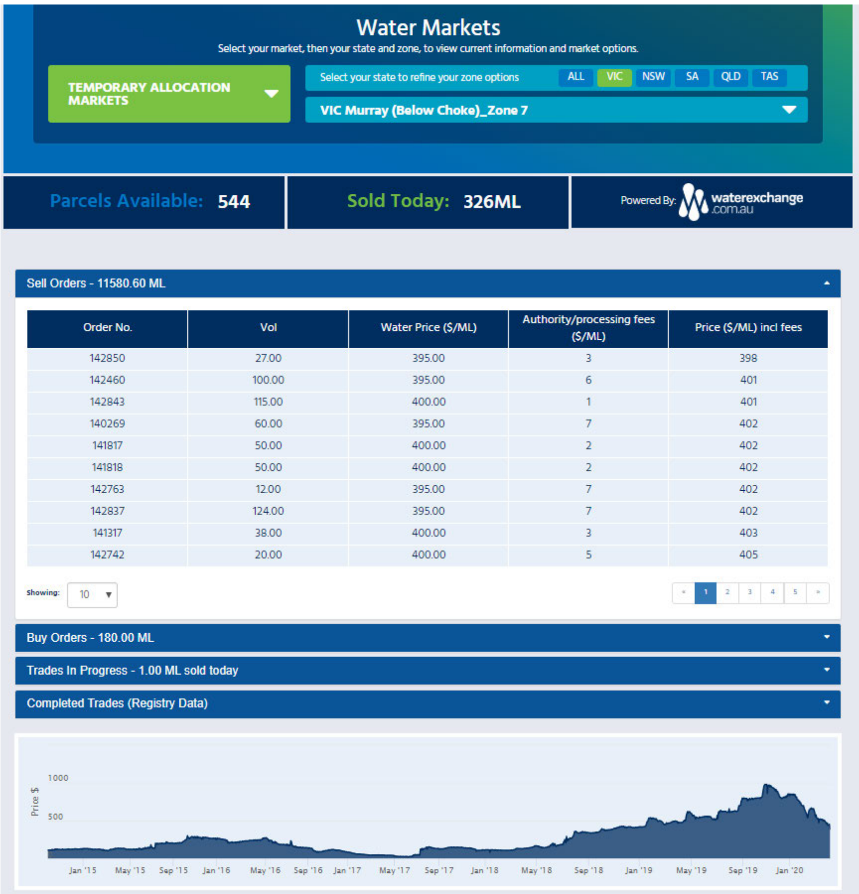
Figure 2: Example of spot market bid/offer spread and volumes

ALLOCATION MARKETS

MARKET	BID	OFFER	LAST
1A-Goulburn	$100.00	$294.00	$304.00
6-Murray	-	$387.00	$370.00
7-Murray	$390.00	$425.00	$390.00
10-Murray	-	$387.00	$405.00
11-Murray	$390.00	$425.00	$400.00
13-M'bidgee	$390.00	$425.00	$580.00

At the same date (see Figure 3), on another leading Water Exchange over 11,000ML are on offer for sale, but less than 200ML are bid.

Figure 3: Sell Orders = 11,580.60ML vs Buy Orders just 180ML



These wide price differentials and inability to deal in liquid markets are not supportive of managing the risk of writing put and call options. The risks of offering long-dated put or call options is therefore beyond the appetite of Argyle's present Water Fund or investment mandates.

Argyle is aware that some irrigators have offered options on forward water allocations in the past. However, Argyle believes those irrigator counterparties are not sufficiently creditworthy or sophisticated to perform the contracts in the event of an adverse event, which is exactly the time at which Argyle would exercise its right under an option.

3.12 The costs of regulation vs the benefits

Basin States, including NSW, already maintain registers of entitlement and allocation trades. In our experience that historical information is readily available via on-line portals (although Queensland's data is not so readily accessed).

A government regulator of market intermediaries, investors and IIOs represents a considerable over-reach relative to other agricultural input and produce markets. Water is also not a financial product.

Increasing the regulation of water brokers – and resulting higher costs execution of trades via intermediaries - may in fact encourage more direct buyer to seller trades (without the involvement of an intermediary) which may result in lesser transparency across various water markets.

Farmers are quite accustomed to selling their produce and purchasing their farming inputs in private treaty markets. They do not seek to have grain/cotton/fertiliser/ag-chem markets regulated. Rather, farmers and their representative organisations have sought progressive deregulation of those markets to encourage greater competition at the farm-gate. In turn this has facilitated greater transparency, greater choice of services, product innovation and we contend has generally lowered execution / supply chain costs.

Farmers are quite capable of determining their best pathways to purchase and sell their produce and inputs and we contend they would largely shun government regulation of those markets.

There is no mandatory licencing / regulation of intermediaries in grain/cotton/fertiliser/milk markets.

Government regulation is costly and adds inefficiency. Those markets are sufficiently developed to self-regulate. Participants are able to rely on the basic principles of caveat emptor / caveat venditor (conduct is regulated by Australian Consumer Law / Corporations Act).

In our view, transacting in water should not be viewed differently. Most farmers are entirely capable of transacting their farm commodities and inputs without regulated intermediaries. Market intermediaries in grains, cotton, sugar, milk, fruit etc are self-regulated by their own design and code of conduct. So too are most water brokers / intermediaries.

Trading in water is not equivalent to dealing in financial markets. Rather it is akin to dealing in other markets for physical goods as described above. Those markets are not regulated by the financial services regulation framework.

Like cotton, grains, sugar etc, the irrigation industry is capable of self-regulation. Rather than a costly government regulated framework, the Australian Water Brokers Association should be encouraged to further develop its code of conduct and standard trade terms and make those well known to prospective water market participants.

Irrigation farmers who choose not to deal via members of the Australian Water Brokers Association should not need to be protected by regulation (likewise, those grain farmers who choose not to deal via affiliates of Grain Trade Australia, or cotton farmers who choose not to deal via affiliates of the Australian Cotton Shippers Association).

ENDS