

H2OX Submission to the ACCC Murray Darling Basin Water Markets Inquiry

9th December 2019

Issue 1 – Market trends and drivers

H2OX is responding to these issues as a water market intermediary offering an independent exchange which allows water owners to transact their asset in an anonymous manner.

The fundamental price of water assets is driven by myriad factors.

Water availability is a fundamental driver. Storage inflow determines how much resource can be deployed to entitlement owners. Over the last two decades we have seen drying cycles of 3-4 years when storages are slowly drawn down and determinations against entitlement reduce. These periods have been followed by significant rainfall events (floods) which not only refill the major storages but also recharge the moisture profile of soils across irrigation districts which in turn reduces demand.

The implementation of the Murray-Darling Basin Plan and the resulting acquisition of entitlement by the Commonwealth has seen over 1,500GL of entitlement removed from the consumptive pool. These entitlements retain the underlying attributes of the entitlement however the determinations are not available to consumptive users. This has reduced overall availability, and this is most pronounced in the dryer periods of the cycle (now).

In addition, the Commonwealth injected large amounts of capital into on-farm irrigation efficiency projects. Not only has this allowed water users to more efficiently apply water to their land but in many cases has increased the area of land capable of being irrigated. In exchange for these capital improvements, irrigators gave up half the estimated water savings. Once the property was improved, the irrigator could generally utilise more water and as a consequence this has put increased pressure on both temporary and entitlement markets.

In addition to these macro factors, water use has dramatically changed in the last two decades. There has been significant private investment made in permanent horticulture, predominantly in the Murray below choke and Murrumbidgee regions. This land use requires a fixed volume of water every year in order to produce a viable crop. Most of the water for these crops is also skewed to the middle of the year – October to March.

There has also been a move towards higher value crops across the southern basin. These crops provide irrigators with greater certainty around water use and income. Fundamentally this is driven by increasing allocation (temporary) water prices over the last 15 years. Irrigators have therefore adopted new crops such as cotton and maize to ensure greater certainty around production margins.

The uptake of new crops has been at the expense of water intensive commodities such as pastures, dairy and rice. There is still space for these commodities when water is plentiful – they are effectively the "sponge" that absorbs vast amounts of water when its available.

Between the reduced volume of entitlement in the consumptive pool and irrigators seeking the greatest margin and certainty for their chosen irrigated commodity, prices for allocation have increased especially when water availability diminishes. At a high-level allocation prices are directly correlated to determinations against NSW General Security entitlements. Allocations against this entitlement class underwrite general water availability across the southern connected MDB. These issues are discussed in *Water Supply and Demand in the southern Murray-Darling Basin*¹ report commissioned by the Victorian Government.

Entitlement prices have risen significantly in the last decade as indicated by the Aither Entitlement Index2. This has been driven by several factors.

² https://www.aither.com.au/aither-entitlement-index-july-2019/

At unbundling, fund managers saw an opportunity to invest in water rights to gain indirect exposure to the agricultural sector. Large volumes of capital were deployed at around the same time as the Commonwealth began purchasing entitlement from "willing sellers". Not only did this push entitlement prices to record highs (\$2,400 per ML in Murray 7 in 2009-10) but it also began a process of consolidation.

Investment managers were looking to secure fixed returns (of around 6-7%) on their capital and many of them entered into long term lease arrangements with irrigators. These arrangements provided irrigators access to entitlement at up-to \$150 per ML per annum – well within the cost of production of most commodities. Many of these long-term leases ranged in term from 3-5 years.

With the big flood event of 2010, entitlement prices declined as water availability increased. Many irrigators saw the opportunity to move to the allocation market to take advantage of allocation prices well below \$100 per ML. Entitlement prices fell well below \$2,000 per ML in Murray 7. The depressed prices resulted in another wave of capital being deployed into the entitlement market and prices began to climb in 2014-15 and haven't slowed down since.

Demand for entitlement remains high. Some of this demand is driven by investors wanting to deploy capital but, in recent times, it has been coming from irrigators looking for security through entitlement ownership.

Prices are also being driven by scarcity. The average volume of entitlement traded has been decreasing since unbundling. There are less and less large parcels (>100ML) being traded. Those that own large volumes are unwilling sellers and command a premium if they come to market. Consequently, buyers must resort to purchasing smaller volume parcels (<50ML) which incurs greater transaction cost. There is also greater competition for the smaller entitlements because they are also accessible to "family farmers" and many, like their larger corporate cousins, are seeking to consolidate their water security.

Since unbundling the number of water products available in the market has increased. These products have been developed by "investors" and adopted by market intermediaries for deployment to the wider market. The range of water products has allowed market participants to better secure their water requirements at a lower capital cost than entitlement ownership.

Entitlement leases (Terms Transfers) were a fundamental product implemented by most jurisdictions at the time of unbundling. They provided the fundamental building block on which "investors" could generate a stable return (historically 6-7% of the capital value) from their entitlement while providing Lessees with certainty over access to the asset. Leases have evolved to become more contractual, providing Lessors with certainty of payment before providing the Lessee seasonal determinations. Leases have provided irrigators and other investors the ability to access entitlement without needing to deploy large amounts of capital.

A large portion of the leasing market is done to acquire carryover space. Carryover is a fundamental attribute of some entitlement classes allowing the entitlement holder to take water into the following irrigation season. This attribute was introduced against Victorian entitlements at the end of the Millennium Drought, allowing owners to mitigate the risks of low seasonal determinations. Carryover is now utilised by all market participants. Irrigators utilise carryover to underwrite water availability and manage price risk between seasons. Investors utilise carryover to ensure they can deliver on other contractual arrangements (see Forward contracts below).

Carryover has resulted in fundamental changes to the water market. The biggest change is "ironing out" the large oscillations in spot market prices across a season. Prior to carryover, prices in the spot market would be extremely high at the beginning of the season as water uses attempted to source their required water. At the end of the season, water prices would plummet to very low prices because there was no ability to use the remaining volume. This ultimately meant that large areas of land were irrigated by owners rather than see water "socialised" for the following season. The introduction of carryover has led to more consistent market prices throughout the season.

Carryover is a vital attribute of (some classes of) entitlement. Carryover does not affect the reliability of entitlement. There are clear rules in each jurisdiction for carryover water – it is the first water to be "written off" if storages exceed their capacity. If carryover were to be removed, the fundamental capital value of some classes of entitlement would be affected.

Forward contracts are the predominant "sophisticated" product now being deployed in the market. These contracts specify the delivery of a fixed volume of water at a fixed price to be delivered a one or more dates in the future. These contracts provide certainty for Buyer and Seller. The volumes of Forward Contracts sold has increased significantly over the last decade, especially as prices in the allocation market start to increase. Sellers of these products have generally been parties with large, diversified (owned or leased) entitlement holdings who are able to manage the risks associated with trade barriers and seasonal determination variability.

Pricing for Forward contracts is commensurate with the prevailing spot market plus a margin based on the outlook for the duration of the contract. Prices for Forward contracts are always higher than the prevailing spot market. It is up to the purchaser to determine whether the pricing is suitable for their business. The pricing on 1-year Forwards has always ended up very similar to, but more often than not, cheaper than the spot market at the time the Forward is delivered. This "discounting" is even more pronounced in 2- and 3-year Forward contracts i.e. Forward water contracted 3 years ago was delivered this season (2019-20) for less than \$200 per ML in Murray 7 when prevailing spot prices exceeded \$800 per ML.

Issue 2 – Market transparency and information

Issue 5 – Competition and market outcomes

Issue 2 – Market transparency and information and Issue 5 - Competition and market outcomes relate to market efficiency, and as such we believe they are both part of a bigger issue, that should be looked at together.

Water market information is fragmented, can be dated and is often contradictory. Multiple agencies are responsible for different relevant data sets, including the BOM, the MDBA, water utilities such as GMW, Private Irrigation Corporations, State Water Registers and a range of others. The quality of this data varies significantly between different agencies, and in a number of cases (particularly storage levels) different agencies report different numbers for the same storage at the same time. Data can also take a long time to be released which makes it difficult for market participants to make informed decisions. A simple example is the state shares of water in storage within the Murray system. This information is only updated once a month, on the first business day after the 15th of the month.

Some market information is accurate, current and readily available such as trade limits in the Barmah choke, however the same responsible agency (MDBA) can take almost 3 weeks to release water sharing data as mentioned above.

Different states also release different data sets making it difficult to form a complete picture of the market. Victoria for example releases unused water information by ownership type which enables market participants to make informed assessments of water availability between environment, private and water corporations. This information is not readily available in other jurisdictions. It would be useful to the market if all states standardised reporting to help participants better understand water availability across the connected basin.

Water market transparency can be divided into two issues. Firstly, historical information recorded on registries that reports completed transactions and secondly, live market transparency such as buy and sell offers and recent trades that are yet to be settled and recorded on the registers.

There are varying standards of water registers across the southern Murray Darling Basin. In Victoria, the Victorian Water Register (VWR) is responsible for registering all transactions in the state. In NSW a mix of Irrigation Corporations and the NSW Water Register provide this information.

The VWR is currently the best water register in Australia in terms of functionality and completeness. All transactions involving a Victorian water account are recorded in the one place. Work is underway in NSW, SA and QLD that may soon see the Victorian Water Register fall behind in terms of functionality, however NSW and South Australian registers only collect information from river diverters, with trades within Irrigation Corporations generally not recorded on the register. NSW and SA should ensure that all trades, including those within Irrigation corporations are recorded in one place to enable market participants to make better informed decisions.

Recommendation: Trades within Irrigation Corporations should appear on state-based water registers

Using the Victorian Water Register as the benchmark, a number of flaws remain that limit its effectiveness in providing timely and accurate water market data.

Every transfer of water in Victoria is currently classified as a trade by the VWR, with no differentiation between the type of trade i.e. on-market trades, related party transfers, forward water trades, contractual lease trades etc. This can create situations where the prices reported on the register are not representative of the current market price. This often occurs early in the season where large volumes of forward water are delivered into a thin market. These transactions are recorded on the register when they are delivered, often well above or below the current market price. This can skew the market price significantly given forward transactions are often for significant volumes. The register needs an ability to record different types of transactions to distinguish those trades that are not "on-market" so as not to distort market prices displayed on the register.

In addition to this, the VWR should also record and publish the contract data associate with both allocation and entitlement trades. At present, transactions shown on the VWR are only shown at their approval date however, in the vast majority of cases, the transaction was contracted well before (potentially up to months in the case of entitlement transactions). Displaying the contract date would provide better market intelligence to participants.

The MDBA recently released a report₃ highlighting that 33% (and 44% across the MDB) of trades in Victoria were reported as a zero-price trade. Whilst some of these zero-dollar trades are legitimate (i.e. there is no way to distinguish a related party trade or that it may have been associated with a parking/carryover transaction) the MDBA report found it "...implausible that almost half of the water trades in 2017-18 were for such reasons". Improving the registers capabilities as described above, could require parties lodging a zero-dollar trade to provide a valid reason for doing so. In addition, many of the trades recorded on the water register are at prices that are not reflective of current market prices and unlikely to be linked to other water transactions such as forwards or leases. In the 2018-19 water year in Zone 7 Murray, a very simple analysis shows more than 750 trades were recorded for a price that was above \$0, but below \$100ML, and 18 trades occurred at more than \$1000ML. We do not believe any of these prices reflect real trades.

Some form of quality control needs to be put in place to ensure the truthful and accurate reporting of water trades through water registers. If reported trades fall a certain distance outside of the current price a "please explain" notice should be issued to the intermediary responsible. This would ensure principle trading is not occurring below/above market and that prices are being reported honestly. Given most trades are now reported by water brokers, this should be easy to implement, and a central exchange would be able to enforce this requirement.

Recommendation: Water Registers should record transaction type, and investigate unusual trade reporting to improve data quality

Regardless of the improvements that can be made to water registers, water registers by definition, only record settled trades, they will always be rearward looking, providing guidance for water market participants, but they do not improve transparency of current market conditions. Price and liquidity (market depth) discovery remains an enormous challenge for market participants, that fixing the water registers will not solve.

The water market remains deeply fragmented with a large number of brokers and a few exchanges all trading water. Limited interaction happens between brokers and exchanges resulting in market "silos". This makes the two key drivers of market transparency and efficiency, price and liquidity discovery, very difficult to determine. Some gains have been made in recent years through the introduction of recent market price data on the VWR and now the new GMW application "Water Market Watch", however this is historic, rather than live market data.

These silos create an inefficient market where the price spread can be material, and the volume available in any one "silo" can lead to mistaken assumptions about the depth of liquidity resulting in participants making poor market decisions. This is exacerbated by buyers and sellers often listing orders with multiple intermediaries resulting in mistaken perceptions of supply and demand. In the current market, those with the resources to devote to trading can prosper (i.e. investors & corporate agriculture), whilst those with limited resources (i.e. family farmers) generally perform badly. By consolidating the market into a central exchange, we can 'level the playing field' ensuring that all participants have the same access to the market as the largest most sophisticated participant.

These "silos" also make it very difficult for any oversite in the market, enabling some brokers to act in ways that may not be in the best interests of the clients they are paid to represent or, act in ways that are not compliant with the water market rules such as accurate price reporting.

To improve transparency, efficiency and confidence in the market, the creation of a single exchange and clearing house would solve every one of these issues and many more. Most markets for a homogenous product eventually condense into a single market and clearing house (e.g. ASX, CBOT (Chicago Board of Trade for most ag commodities)). A single exchange makes price and depth discovery easy as every buy and sell order is listed in one place. This is the single key issue in the current water market, there is no single exchange that lets every participant see every buy and sell order in real time in one place.

A single exchange/clearing house increases the depth of the market making it harder to manipulate, and harder for participants to make large profits by trading on inefficiency. A single exchange/clearing house makes implementing regulation easy as the exchange can ensure participants are complying with the rules. A single exchange/clearing house increases confidence by integrating with existing state registers to ensure all sell orders are placed only once (with holds placed on the water) and that buyers are bound to their bids, resulting in dramatically reduced failed trades. A single exchange/clearing house can trade in real time ensuring buyers get their water faster and sellers get their money faster.

A single exchange/clearing house will also increase the number of products available to the market. By improving depth and price discovery, new products can be created that allow participants to manage their risk at lower cost over longer periods. A central exchange would foster the development of derivative products that would allow irrigators to manage their risk through even the most extreme droughts through a mix of physically and a cash settled products, improving the resilience of the market and more importantly agriculture to extreme climatic events such as drought.

A central clearing house provides much greater levels of protection for client monies, whilst ensuring buyers honour their buy bids. By using a single clearing house, client funds would not be held by individual brokers, but rather by a central account that market participants pay directly into. This would eliminate the risk of client monies being lost through fraud, insolvency, garnishee notices etc.

A central clearing house would speed up trading, by guaranteeing payment to sellers, reducing the lag in payments that sometimes occurs after trade approval (some brokers earn interest on their so-called "trust accounts" and are therefore incentivised to delay payment of client funds post trade approval).

Additionally, the use of a central clearing house could fund improved compliance, insurance, developments to the state registers and other activities through the generation of interest, much like interest earned in statutory trust accounts held by real estate agents is used to fund the Real Estate Institute of Victoria.

Recommendation: A single exchange clearing house be established to improve market efficiency and provide a level playing field for all market participants

Issue 3 – Regulation and institutional settings

We believe that the level of regulation of water exchanges, brokers or other intermediaries is not appropriate:

Without formal market regulation of the water, there is little oversite into the actions of brokers/intermediaries. At present, a market participant has only the ACCC to turn to, under the basis of Corporation's Law. Brokers are able to act in a way that would not be allowed by real estate agents, stockbrokers, solicitors, accountants and any other regulated profession. As a result, participants have little confidence in the water brokering industry.

While the Australian Water Brokers Association (AWBA) has campaigned self-regulation as the best option, we don't feel that market participants would see this as a viable option. A number of market participants, such as the Almond Board of Australia, have raised concerns about broker behaviour and its impact on water prices. This lack of trust in the broker industry from major market participants, makes self-regulation unviable in our view. There are no punitive powers in the AWBA Code of Conduct and no jurisdiction over brokers/intermediaries who aren't a member. Being such a small industry, the AWBA committee is deeply conflicted in that all the office holders are intermediaries themselves with vested interests in maintaining the status quo, which maintains broker control of the market.

Regulation would offer a range of improvements beyond ensuring broker and market participant compliance with the market rules. One of the major benefits of regulation would be the requirement for intermediaries to use statutory trust accounts to protect client funds (preferably through a single exchange/clearing house). As it currently stands, water market intermediaries do not have access to statutory trust accounts and therefore client funds are at risk in the event of an insolvency, garnishing orders, or any other claim against an intermediary. Whilst many brokers claim to use trust accounts (a claim that is both misleading and deceptive), without a regulatory body overseeing the water market this is impossible. Some brokers utilise the trust accounts held by related real estate businesses, however there is significant doubt that funds from water transactions held in these accounts (or other statutory trust accounts such as solicitors, accountants etc) are protected as they are not funds derived from the performance of services related to those industries. It should be noted that a central clearing house could also provide suitable consumer protection.

Whilst trust accounts do not protect clients from fraud, regulation of the industry could provide insurance to compensate anyone impacted by the illegal behaviour of the trustee. None of these protections currently exist in the water market. Given the value of water transactions at present, it is incredulous that client monies are so poorly protected.

Regulation would also impose minimum standards on the water brokerage industry. At present there are no barriers to entry to become a water market intermediary. There are no minimum knowledge requirements, no insurance requirements, no requirements to prove you have the sufficient financial resources etc. Anyone can instantly become a water broker and hold large amounts of client money and change the ownership of water assets worth (potentially) millions of dollars with almost no oversite from the government.

Other benefits of regulation, pending the type of regulation enforced, would be to enable the development of new water market products. If for example water were to be classified as a financial product, a range of beneficial water products could be created that would reduce irrigator costs in hedging their water risk. It would enable water derivative products to be cash settled rather than "physically" settled. This would improve the affordability of water hedging tools as sellers of these products could limit their exposure, whilst buyers could increase their hedges against a dry period at lower cost. It would also make it easier for banks to manage and understand their exposure to water, improving outcomes for water exposed industries such as dairy.

To increase market participant confidence in the market, regulation of the market should be implemented as soon as possible. Without regulation and oversite, market participants and brokers can act in ways that wouldn't be allowed in any regulated market. This must be unified across all jurisdictions.

Rather than a stand-alone regulation it would be conceivable that licencing for water brokers/intermediaries could fall within an existing regulation. Given the largely financial orientation of the products in the water market, a category of Australian Financial Services Licencing (AFSL) would seem to be an appropriate option.

Recommendation: An appropriate level of regulation should be applied to water market intermediaries and the broader market to ensure the market operates as intended

Issue 4 – Market participant practices and behaviours

The water market is made up of a diverse range of actors, all with different participation methodologies, varying levels of sophistication, and differing needs. All market participants have an impact on the market, and many market participants could be classed into more than one category of participation. For example, many farmers speculate in water, buying and selling water to make a monetary profit, whilst also buying and selling water to match their productive requirements and many investors are also water users. Whatever way a market participant is defined their actions can have significant impacts on the water market due to the inefficiency of the water market, and the relatively small size of the market.

The behaviour and practices of "speculators" has been the subject of much debate over the last couple of seasons. We define speculators as someone who buys and sells allocation with the intention of making a cash profit rather than for productive use. Not all non-water users or water investors are speculators, a number of investors do not buy allocation, rather they simply sell the allocation their entitlement generates providing much needed liquidity to the market.

As research from the VWR and others have shown speculators play a minor role in the water market, however the number of speculators has been increasing in recent season. More and more market participants are trading on the inefficiency of the water market (including many farmers), which in the market's current form, is putting upward pressure on prices, as speculators only have the ability to go "long" in the market by buying water. The water market is not sufficiently mature to realise all the benefits of speculators (who play a vital role in offering sophisticated products like Forwards and Leases, as well as supplying liquidity to the market). With a more mature market, creating the ability to "short" the market would at times, put downward pressure on prices and even out the role speculators play in influencing price.

There is a common misconception amongst irrigators/market commentators about the behaviour of speculators in the market and the way that some of the larger speculators act. As an exchange we deal with all the large water investors/speculators so have a lot of visibility of their activity in the market. It is assumed that water speculators, largely buy water, hold it and hope the price goes up. Whilst this is definitely true for some (mainly farmer speculators), the larger water investors generally speculate by buying allocation that they then forward sell, or most commonly buy and sell constantly, taking advantage of inefficiencies in the market and the large "spread" in prices between brokers/intermediaries. Larger more sophisticated speculators take these "easy" gains rather than the huge risks involved in taking a long-term position in a market driven largely by the weather. By being active in the market daily, investors are making many small profits, that when combined equate to large profits across the season. This is done at minimal risk to the investor/speculator who is largely arbitraging the market as opposed to taking a speculative position about macro market movements.

The positive role that speculators play in the market is often ignored. Without investors/speculators, more sophisticated products would not be available and liquidity in the market would decrease. This would create more volatility in the water market which would have a negative impact on all users. One of the key roles played by speculators is the aggregators of large numbers of small parcels (often viewed as unviable by large water users) into large parcels of water that are attractive to corporate agriculture. This reduces the impact large corporate users have on the market, by transacting in single tranches rather than buying a multitude of smaller individual parcels in a short time frame that can give misleading signals to the market.

The use of carryover by all market participants has been the subject of much debate, and the impact carryover has on allocation prices. Carryover is used by many different types of market participants, from water users, water corporations, the environment and by non-water users. All of these market participants use carryover for the same reason, to ensure water availability in the following season.

The use of carryover is an essential tool for all market participants to manage water risk. It provides water users such as farmers, water corporations and the environment to ensure access to water the following season in dry periods. Water users carrying over water, ensures they have water available to finish winter crops at a known price, whilst removing buyers from the market when allocations can be low. Carryover is also used by irrigators with permanent plantings to reduce their water risk between seasons. Permanent plantings have relatively fixed water requirements, carryover enables those irrigators to ensure they have access to water for the next season. By carrying over water, these market participants can reduce their dependence on the allocation market putting downward pressure on water prices by reducing/removing demand.

As an example, we have a number of horticultural clients who use carryover to manage their water risk between seasons. One of these clients, who was concerned about water availability this season based on the 2019-20 water outlooks (which had Vic Murray HRWS only reaching 20% by February under extreme dry) entered the allocation market and purchased 80% of this seasons water demand. They used their own carryover capacity as well as leased low reliability water shares and other parking products to carryover this water. As a result of this strategy this client secured their water requirements for this season well under the current allocation price, whilst removing a large buyer from an under supplied allocation market, which reduced demand.

Like water users, investors use carryover to manage their water requirements in the following year. Most commonly, investors use carryover to underwrite forward contracts they have sold for the following season. Carryover allows investors to forward sell water to irrigators at a known price for the following season, providing irrigators with price certainty, whilst limiting their risk by buying the water in the current season. This allows forwards to be sold at a cheaper price as the risk is known. In dry years, forwards would be unviable without carryover as the risk in supplying them would be too great.

If carryover was removed, volatility in the allocation market would increase significantly. Prices would fall drastically at the end of each season, as unused water would be sold off to avoid it being written off. Whilst this would decrease prices, it would also significantly decrease water use efficiency as irrigators adopt a "use it or lose it" mentality. Similarly, water prices would jump significantly early in the season as irrigators would be forced to enter the market to finish winter crops in spring, whilst competing with permanent plantings looking to secure early season requirements. The level of volatility that would be introduced to the market would make it very difficult for irrigated agriculture that was exposed to the water market to survive.

Operating as an independent water exchange where participants anonymously transact water, we can state that rapid price fluctuations have occurred in the last couple of years as water availability has decreased. The large price increases have generally been the result of water users entering the market to purchase large (>1,000ML) volumes of allocation water in compressed time frames. In low water availability years, the market is not deep enough to support such large volume purchases and therefore the price increases.

These rapid price increases are further exaggerated in low water availability seasons (as being experienced now). H2OX discussed these issues back in May 2019 when we published a Water Availability and Prices Outlook₄. With low seasonal determinations, larger parcels of water are difficult to source and, as a result, those owners can command a premium.

The fundamental price of allocation is a function of the commodities being grown and water availability (see discussion under Issue 1 above).

Government and statutory institutions also utilise the water market. They are predominantly sellers of allocation water with some providing carryover services. Entities use various strategies to transact their water. In general, we find most of these organisations operate in a manner which doesn't affect the market – they seller smaller volumes of water frequently. The Victorian Environmental Water Holder (VEWH) even commissioned a reports which demonstrated that its sales strategy did not influence prices in the market.

⁴ https://h2ox.com/fy20-water-availability-and-prices/

⁵ http://www.vewh.vic.gov.au/news-and-publications/news/water-sale-in-northern-victoria-2019

Prices have also been influenced when large institutions such as the Commonwealth Environmental Water Holder (CEWH) sell water. These sales are always announced to the market. The most recent sale6 was 20GL in the Goulburn. The announcement was made on 27 August 2018 and applications opened on 3 September 2018. Up until the announcement allocation had been trading around \$300 per ML in Goulburn 1A. As soon as the announcement was made the market went flat as market participants anticipated buying water well below the prevailing prices. The CEWH ended up selling its water at an average price of \$290 per ML₇ - effectively at the prevailing market price. A week later the spot market was trading at \$320 per ML as unsuccessful tenderers entered the market desperate to find water for their needs.

While tenders provide a "fair" way to distribute a finite volume of water into the market, they have a consequential effect. In the case of the CEWH, 20GL of water is perceived as a massive volume of water for an average irrigator who may use 1-200ML in a season. For this reason, they believe such a volume will have a consequential impact on the market. The reality is 20GL is less than 0.5% of the average water use across the southern MDB. Participants also believe that the CEWH and other large institutions will heavily discount the price.

The current Water for Fodders program is having a similar impact on the spot water market right now (December 2019). The guidelines for the program were released 1 December 2019 and the number of transactions has reduced to a trickle as participants (not just those eligible to apply) see market prices softening. Once again, 40GL is perceived as a massive volume of water by the average irrigator and therefore envisaged to have a material impact on the market. Time will tell whether this is the result.

There is currently no regulation for water market intermediaries. The Australian Water Brokers Association (AWBA)9 does have a Code of Conduct however not all intermediaries are members and there is no provision for a Business/Company to be a member which is a major shortcoming. This results in Company's insinuating they are members of the AWBA when in fact only a few individuals may be members.

The AWBA is a voluntary organisation which is funded by member fees and currently no paid officers. The Executive of the AWBA is comprised of broker members presenting significant challenges in policing adherence to the Code of Conduct with many potential conflicts of interest. There are also conflicts with executive members participating in meetings and presenting (or not) that information to broker members.

H2OX has also seen inappropriate activity by water market intermediaries operating in the water market. In relation to entitlement transactions, false information was provided to H2OX through a secondary water broker. This included the name of an individual purporting to be acting on behalf of the purchaser. When enquiries were made with the purchasing entity to ascertain the legitimacy of that individual executing the documents H2OX was informed that individual was unknown to the business. Information relating to this dealing has previously been provided to the ACCC as both standalone documentation and as part of our response to the notice to give information and provide documents under Section 95ZK.

We are also aware that many water market intermediaries utilise their own water accounts to transact water. Some of these accounts are in the name of their company/business while others are in their personal name or the name of a related party. These accounts are used for any number of purposes including consolidating smaller volumes of allocation to minimise transaction costs or transferring allocation through IVT's or the Barmah Choke. Minimising transaction costs is claimed as the main reason why intermediaries offer such a "service". In reality, transaction costs are simply the cost of doing business in the water market.

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 $^{{\}small 6~http://www.environment.gov.au/water/cewo/media-release/commonwealth-water-for-the-environment-for-sale-goulburn}$

⁷ http://www.environment.gov.au/water/cewo/media-release/sale-goulburn-water-allocation

⁸ https://www.agriculture.gov.au/water/mdb/programs/basin-wide/water-for-fodder

⁹ http://awba.org.au/

Further, transacting water through IVTs on broker held accounts can prematurely close IVT limits, by pushing large volumes of water though IVTs as soon as they open, these trading opportunities rapidly close. Water can then be sold off slowly from the brokers account, keeping prices high in the trading zone the water was moved to, and keeping prices low in the trading zone the water came from. If broker accounts were not used, and water had to be either moved between an irrigator's individual accounts (in the NSW, this is a slow process due to the effort involved in setting up a zero WAL), or transacted through the IVT as a real trade, we would expect prices to respond more rapidly when IVTs opened. If water was sold through an IVT rather than moved on a brokers account, we would expect to see prices rapidly equalise in both trading zones, benefiting all market participants which would likely result in IVT staying open for longer periods of time and the water market operating more efficiently as a result.

There are conflicts of interest with intermediaries trading water through their water accounts. Who is the legal owner of the asset when it transfers to the intermediaries account? Is the intermediary a party to the contract? Once the water is on the intermediaries account, does the water owner have the choice in who transacts the water? The seller of the water also loses the ability to keep track of their water through the transaction process, as they only have the ability to see the trade from their account to a broker's account, not from the broker's account to the buyer. This reduces transparency and limits the seller's ability to check at what price their water transacted.

H2OX believe that all water transactions should take place between buyer and seller water accounts and there is no need to market intermediaries to use their own water accounts. There are minimal (if any) costs involved in setting up water accounts in different jurisdictions (instant in Victoria) however market intermediaries rarely share such information to participants. Once an intermediary has the seller's water on their account, they have more control over what the seller can do.

As an example, H2OX was asked to sell water on behalf of a client. Their water was being held on another intermediary's water account. It was a convoluted process to get the necessary signatures to sell the water from the intermediary's water account. This process added unnecessary time to the transaction and delayed settlement.