



Murray-Darling Basin Plan: Implementation review 2023

Productivity Commission

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Productivity Commission,

Submission to the Productivity Commission - Murray-Darling Basin Plan: Implementation Review 2023

This submission is to bring to your attention concerns with water trading in the Murray-Darling Basin (MDB). The objectives of the water market and trading in the MDB as set out in the Water Act 2007 include to facilitate the operation of efficient markets and to provide appropriate protection of third-party interests. There is a lack of confidence in the water market (this letter focuses on the connected Southern Murray Darling Basin water allocation market). Part of this lack of confidence stems from the perceptions of investor behaviour in the market.

As with other markets, there are conditions that need to be met for markets to work efficiently:

- 1 market transparency,
- 2 appropriate governance arrangements and
- 3 the absence of market failures (e.g., market power or externalities).

This submission highlights potential distortions in the Southern Murray Darling Basin (SMDB) and water market. The note is set out in two parts:

- A. Current governance issues in the water trading market (addressing market conditions 1 and 2 above)
 - Consistent with the findings of the ACCC, there are significant deficiencies in the governance arrangements for the water market that undermine its efficiency, create mistrust and allow potential for market manipulation.
 - Despite governments' endorsement of the recommendations to address these deficiencies, no changes have yet been implemented to address them.
- B. The growing size and impact of non-consumptive water investors in the SMD water is having a devastating impact on farmers and farm communities during drought periods.

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- The frequency and severity of droughts is likely to increase making it more important now than in the past for the government to reassess the role of investors in the market during drought periods.
- During drought conditions the SMDB water market does not work like a textbook market. Misuse of market power or over-pricing caused by low-risk, high-return speculative activity by investors have the potential to distort the market and threaten the very viability of farm businesses and permanently damaging local economies dependent on the farm sector.

These issues highlight risks associated with potential investor behaviour in the water trading market and are raised for your consideration as part of this current review of the MDB Plan.

Yours sincerely

Rob McGavin
Cobram Estate

Economic analysis of water trading in the Southern Murray Darling Basin

Context of water trading

Water trading occurs in both permanent (entitlement) water and temporary (allocation) water. Although this note is concerned with allocation water trade, the context of entitlement water is also noted. Allocation water is made each season (and reviewed throughout the year) based on decisions by state water resource managers to allocate a percentage of the entitlement water. The entitlement water holders therefore are able to either use the water for their own consumptive purposes or trade it in the allocation market.

Irrigators need to have allocation water in their accounts prior to using it on their crops. They cannot 'catch up' by purchasing later in the year. This makes the timing of water purchases critical for irrigation. Irrigation activities include both annual and perennial crops, which differ in key respects (summarised below).

Table 1: Differences in annual and perennial crops

Annual Crops	Perennial crops
<ul style="list-style-type: none"> Water needed annually for planting decisions autumn/summer Typically lower value products Demand for water is more elastic, they have flexibility to decide not to plant (or plant less) according to water price available 	<ul style="list-style-type: none"> Water needed to sustain plantings (and in some cases keep alive) through hot dry summer periods Typically higher value products Demand for water is more inelastic as even as the price rises in dry times, they will be more likely to continue to pay higher prices as the water is needed to sustain capital invested in the form of tree plantings

Agricultural land use in the lower Murray Darling is trending away from annual crop production into higher value perennial production. Irrigated crop area data for the lower Murray Darling from the MDBA¹ shows from the period 2003 to 2021 in the Lower Murray, seasonal plantings reduced by 34% or 26,285 hectares; while over the same period permanent plantings increased by 37% or 35,575 hectares. Similarly, data from the ABS shows a change toward more higher value farms (A Loch et al 2021 and ABS²).

Active irrigators are the consumptive users of allocation water and are involved in trading for the purposes of obtaining this allocation water. Non-consumptive holders of water are also involved in water trading, both as entitlement holders, and also trading in the allocation market. These non-consumptive investors, including managed investment funds, are the subject of questions in this letter.

Part A: Current governance issues in the water trading market

Water is a scarce resource, and the water market is intended to be an effective way to facilitate efficient use of this scarce resource. Trading water between participants allows water to move to its highest value use. However, for markets to work efficiently there are conditions that need to be met: no market failures (e.g. market power or externalities), market transparency and appropriate governance arrangements. While there is insufficient evidence to demonstrate market failure, Cobram's practical experience in operating in the water market, particularly during drought periods, is that the market is not a level playing field. Indeed, as evidenced by the Australian Competition and Consumer Commission (ACCC) recommendations in this area, the industry clearly accepts that there are serious issues in the water market in relation to market transparency and governance.

The ACCC conducted a review into the Southern Murray-Darling Basin water markets in 2021. The ACCC review found that despite a functioning water market in the Southern Murray-Darling Basin, there were deficiencies that undermined its efficiency and caused mistrust of the water market. This included the following key findings.

- **A lack of quality, timely and accessible** information for water market participants.
- **Scant rules governing the conduct of market participants**, and no particular body to oversee trading activities, undermining confidence that the market is operating fairly and allocating water efficiently to its highest value use. In particular, water market intermediaries such as brokers and exchange platforms currently operate

¹ Irrigated crop area data for the lower Murray Darling 2003 to 2021 (mdba.gov.au)

² From the 2017-18 Rural Environment and Agricultural Commodities Survey (REACS), the scope was all agricultural businesses with an Estimated Value of Agricultural Operations (EVAO) of \$40,000 or greater. This is a change from previous surveys, where a scope of EVAO of \$5,000 or greater was used, and is a continuation of the scope used in the 2015-16 Agricultural Census.

in a mostly unregulated environment, resulting in a lack of clarity regarding the role brokers play and permitting undisclosed conflicts of interest to arise.

- Trading behaviours that can undermine the integrity of markets, **such as market manipulation, are not prohibited**, insider trading **prohibitions are insufficient and information gaps make these types of detrimental conduct difficult to detect**.
- Differences in trade processes and water registries between the Basin States **prevent participants from gaining a full, timely and accurate picture** of water trade, including price, supply and demand.

To improve the operation of the market, the ACCC recommended a package of reforms that aimed to restore confidence in the market and to improve its operation and efficiency. The recommendations centre on the following themes:

- governance of the Basin water markets;
- market integrity and conduct;
- trade processing and water market information; and
- market architecture.

Further to the above, the ACCC also investigated the role that investors play in the water market. Investors are defined as actors that trade or manage water assets for the purpose of financial gain unrelated to the use of the water. The ACCC found that investors contribute positively to the water market through creating new sources of capital, improving liquidity and moving water to the areas of greatest demand.

The ACCC did not find any evidence of market manipulation or other misconduct by investors but acknowledged that under the current settings of the market, there are risks of market manipulation. The recommendations that were put forward by the ACCC would go some way to alleviating this risk.

An Independent Advisor was appointed to develop a roadmap for implementing water market reforms in response to the ACCC report. All 23 recommendations put forward were accepted by the Federal Government and the Basin States in October 2022. However, as of July 2023, legislation has not yet been introduced to address these recommendations.

The water trading market is a financial market, and the market integrity rules that apply to the more established financial markets should also apply to the water market. Governments should not put at risk families' livelihoods by failing to apply integrity rules in the water market similar to those already in place in the financial markets.

Part B: Potential impacts of the growing number and size of non-consumptive investors in the market

Cobram acknowledges that the ACCC recommendations are moving in the right direction. However, as participants in the market, we remain concerned that not enough attention is being placed on the growing size and impact of non-consumptive water investors in the SMD water market and the potential for these large players to exert market power in periods of drought.

The water market will not be efficient at allocating water to its highest use if some players can exert market power. In an ideal market there will be many buyers and sellers, none of whom can impact the market price individually or in concert with others by exerting market power. A special feature of the SMD water market, that is different to the textbook characterisation of an efficient market, is that trading behaviour differs markedly depending on water availability. In periods where there is an abundance of water there is little incentive for non-consumptive water investors to be active in the market. Conversely, investor activity ramps up during drought periods.

Textbook markets characterised by many small buyers and sellers using the same information set and transacting continuously (i.e., there are no impediments to liquidity in the market) generate socially optimal outcomes over the longer term. In the context of water, this would result in water being efficiently allocated to its socially optimal use with all businesses earning a normal rate of return – that is a return that is sufficient to maintain equilibrium in the farm sector. This means there is no incentive for farmers to scale operations up or down or for businesses to enter or leave the industry. In the textbook market it is possible in the short term for buyers and sellers to make mistakes in trading decisions when they react to new information (e.g., predictions of long-term weather patterns). However, such mistakes cannot have significant impacts on the market as there are many players and mistakes will tend to cancel (e.g., some players will over-estimate and others under-estimate the impact of the new information). With liquid markets and many buyers and sellers a new equilibrium will be reached without major distortions in the allocation of water.

The reality of the SMD water market is very different to the textbook market.

- 1 There are some very big buyers and sellers operating in the market.
- 2 The supply side of the market is dominated by weather conditions. This can result in discontinuities when extreme weather conditions prevail (e.g., droughts and floods).

- 3 Volumes traded can vary significantly depending on weather conditions with some market participants (e.g., some non-consumptive users) only active in drought conditions.
- 4 Mistakes or misuse of market power can have devastating impacts on farmers and local communities.

None of the characteristics of the SMD water market will necessarily prevent a socially optimal outcome from being achieved in the long run.³ However, it is critical to recognise that the long run in this context is likely to mean decades not months or even years. Major droughts that test the limits of the market occur only sporadically. This means that market participants may not have the benefit of learning from repeated trial-and-error participation in the market under different conditions with many small transactions (relative to the size of their business). For example, a farmer might have only 1 or 2 opportunities to operate in a market impacted by a severe drought resulting in them having to make all-or-nothing decisions because the transaction size and value is likely to be very large relative to the size of their balance sheet. This means that the consequences of getting one transaction wrong (paying too much for water or not paying enough resulting in not getting access to enough water) can be devastating to the farmer. In other markets the transaction size relative to the balance sheet of the transactor are typically small and/or the nature of transactions differs. For example, large transactions can be planned and executed without the urgency that an extreme drought imposes on farmers who need water to keep their crops alive. It is important to recognise that the urgency a drought imposes on a farmer operating in the water market is not specific to that farmer. In such circumstances all farmers operating in the water market are likely to be experiencing the same pressures. This can be likened to a banking crisis where a severe shock leads all participants to seek an exit from the market and selling activity leads to a downward spiral in asset prices and, potentially, systemic failure as contagion effects bring down businesses that are otherwise healthy. In the water market the shock is extreme drought and all participants seek water at the same time leading to an upward spiral in prices and potential systemic failure in the farm sector and local communities. The attached letter from concerned industry representatives to Government Ministers in charge of the water resources demonstrates the concerns of impacted farmers in real time when they were dealing with the stress of extended drought conditions and struggling to access water to keep their crops alive and their businesses afloat.

Cobram acknowledges that in the very long run, with the accumulated experience of participating in the market over many weather cycles, the market may produce socially acceptable outcomes. In the shorter term, however, the adjustment costs for the farm sector and the local communities that depend on agriculture can be devastating. The collapse or near-collapse of farm operations can be extremely stressful for farmers and can damage the social and economic fabric of local communities that depend on farm activities. In textbook markets structural adjustment costs are externalities that are not taken into account by individual participants when making decisions. In these textbook markets the replacement of existing businesses with new businesses is assumed to happen in an orderly fashion, with each business dropping in or out of the market not being big enough to cause harm to other businesses or local economies. In the context of farm communities dealing with extreme drought conditions the assumption of orderly transition is far from reality. Farm operations might be small on a national or global scale but in terms of the local economy they can be big enough to have a significant impact at the local level in terms of the income they generate directly and indirectly through their supply chains. Moreover, because an extreme drought is likely to affect all farm operations in a region the negative impacts on the local economy will be leveraged. Such shocks lead to an abrupt rather than orderly transition of the local economy. In such circumstances diversity and depth in the farm sector and the local economy may be lost as businesses and people are no longer willing to take the risks necessary to operate or work in businesses that can be badly impacted by extreme droughts.

While structural adjustment in the farm sector is inevitable and healthy for the economy over the longer term, Cobram is firm in the view that such adjustment should happen at the lowest cost to local communities and to the economy as a whole. An orderly transition where some farm businesses and other businesses in local economies close and are replaced by new businesses is likely to be healthy for the economy in the longer term. In such a transition there is an opportunity for existing businesses to restructure and prepare for changed opportunities as well as for new businesses to emerge to soak up valuable resources released by the businesses that are exiting the market. In a crisis environment where an extreme drought impacts many businesses at the same time this type of orderly transition cannot happen. Instead, it is likely that there is a consolidation of activities by the strongest businesses in the local economy and a narrowing of the economic base.

Cobram understands that government policy cannot prevent shocks related to weather patterns, such as extreme droughts. Instead, governments provide support to local communities impacted by such shocks to help offset the adjustment costs. Cobram believes that the presence of non-consumptive users in the SMD water market has the potential to seriously exacerbate the negative impacts on farms and farm communities of inevitable, but unpredictable, shocks like extreme drought. Because of the particular characteristics of the SMD water market Cobram believes that the government needs to look more closely at the role non-consumptive users play in the market, particularly in drought periods. Providing relief to communities impacted by extreme drought conditions is

³ We assume for the moment that misuse of market power is not a feature of the market to date. We will return to this issue later.

welcome but ensuring that the negative impacts of such shocks on the community are not exacerbated by the behaviour of non-consumptive water traders should be a priority for government.

The exercise of market power is one way that non-consumptive water traders can exacerbate the negative impacts of extreme drought conditions on farmers and local economies dependent on the farm sector. The use of market power in the water market will increase the price of water above its fair value (i.e., what would be obtained in a competitive equilibrium). If non-consumptive water traders exert market power they will earn above normal profits (i.e., what is required to fairly compensate them for the risk that they are taking) and farmers buying water for their crops will earn below normal profits (i.e., what is required to keep them in business). This would clearly not be a sustainable outcome and farmers would leave the industry voluntarily or involuntarily if they experienced financial stress.

The ACCC claims that it found no evidence of market power in the southern MDB entitlement or allocation water markets. Given our experience in the water market we are not convinced by the ACCC finding. It may be that the technical hurdle for identifying market power is too high. In any case, Cobram's main concern is forward looking and relates to the activities of institutional investors in the water market, who have been growing in size and influence.

Our hypothesis is that the ACCC has based its finding on an incomplete information set. At a high level, there is not a lot of data relating to market activity in drought conditions. This lack of relevant data reduces the potency of statistical analysis for proving or disproving a hypothesis. The data that is available is often opaque when it comes to analysing investor behaviour. This is because the data on trades does not clearly identify the non-consumptive players. However, some information, such as where trades occur without being associated with land, can indicate a picture of non-consumptive investors in the market. This is not a perfect measure as these trades could still include consumptive users who are simply trading with multiple allocation accounts. However, while it may be imprecise, it is likely this category would capture the non-consumptive users and could be considered a proxy to illustrate trends in their activity. The proportion of these trades is increasing, from 5% in 2009 to 12% in 2018 (DELWP 2019). The ACCC also found similar trends with regard to investor holdings with differences across zones, but around 11% of all transactions (ACCC 2021). Although to date the ACCC found the size of investor holdings not to be of sufficient size to exert market power, the trends in growth suggest this is a concern that warrants serious attention going forward. Whether the size of holdings is sufficient to exert market power should be considered in the context of water availability. Low water availability in extreme drought conditions and growing investor activity in the water market at these times is potentially problematic.

As an example, in 2018 the investment company Duxton Water reportedly bought 64.5GL of allocation water in 2018. The ACCC did not specifically draw attention to Duxton but noted that one key large investor purchased a significant number of small parcels of water and sold the water back into the market at a later date in larger parcels. The ACCC analysis did not find any evidence that any investor was able to exercise market power or withhold water to increase prices. While this example was assessed as not having distorted the market we believe the conditions are ripe for similar players doing so in the future. If current trends continue there will be less water available in the future and more investment funds with larger holdings in the market.

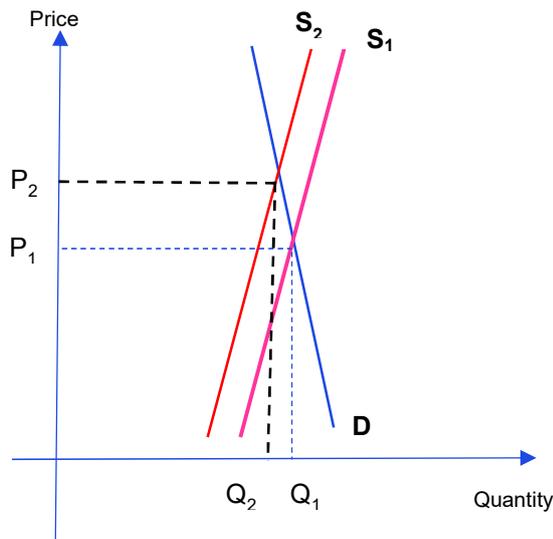
This potential for market distortion by non-consumptive investors is assessed below. We consider two mechanisms that lead to market distortion. The first relates to the size of the investor (and their associated allocation trades) relative to the market. The second relates to the potential for drought conditions to lead to speculative bubbles that increase allocation water prices well above fair value.

Market power based on size

Market power refers to the ability of a firm or a group of firms to influence the price of a good or service in the market. In the water market, participants do not have the ability to affect the overall supply of allocation water. In the allocation (temporary) market, it is the state water resource managers that make seasonal determinations against entitlement, and therefore dictate water availability at a point in time. Entitlement owners who attract this allocation water can choose when (and how much) of their supply is brought to market to trade. Entitlement owners and non-consumptive traders who buy and hold allocation water have the potential to exert market power if they hold significant volumes of allocation water. So, by holding large volumes of allocation water back from sale and/or by buying in the allocation market investors may be able to use their size to put upward pressure on prices, thereby improve the value of their portfolio. As in other markets, there is a risk that investors with significant resources and market knowledge can influence prices through their trading activities.

Economics theory demonstrates that market distortions created by the exercise of market power (e.g., monopoly or monopsony) result in a deadweight loss to society. In this case there would be a transfer of wealth from consumptive users to investors but net welfare for society would be lower than would have been obtained in the absence of market distortions (i.e., if the market had operated competitively). While allocation holders are not able to reduce supply, they can withhold supply for a time in anticipation of obtaining higher prices. In extreme drought conditions when demand for water is acute (and inelastic) large investors may have incentives to manipulate the price higher by withholding supply.

The diagram below highlights the features of the water market in periods of drought that make it vulnerable to changes in supply, whether through misuse of market power or attempts to speculative investment behaviour to generate large returns (this is discussed further in the next section in relation to carry-over provisions).



The diagram shows that in drought conditions both supply and demand are highly inelastic – water is essentially fixed in supply and farmers with perennial plantings need water to keep their crops alive. With inelastic supply and demand conditions small changes in quantity supplied lead to disproportionately large price responses. In the diagram withdrawing supply is represented by the shift of the supply curve to the left – this might reflect an investor carrying over a larger proportion of their water portfolio for the following season. This action reduces the quantity traded by a small amount but increases the price of water by a disproportionately large amount.

Speculative bubbles

A speculative bubble in the water market may occur when price is driven “irrationally” above its fair value (or competitive equilibrium price) as investors chasing high returns compete for scarce water without understanding its underlying value (to consumptive users). Such mistakes can occur in financial markets where the prices of financial assets (e.g., particular stocks) are driven above fair value. Such mis-pricings will typically be resolved without major disruption to the underlying businesses or the economy. In water markets, where users are concentrated in local economies and demand for water is highly inelastic in drought conditions, mistakes by investors (over-pricing water) can be devastating to the farm businesses whose key assets are perennial crops that are worthless without water. With perennial crops not having access to water at critical points in time does not just result in crop loss for a particular season it may result in the loss of all future crops that the perennial plantings were expected to support. Over-priced water may result in losses or low returns for investors but it could also lead directly to farm businesses, the underlying users of water, going broke.

In financial markets, over-priced stocks (or other assets) typically result in investors losing money at some point when the price corrects to fair value. In water markets investors lose money as well, but along the way farmers who could not access water economically (because it was over-priced) go bust or lose part of their perennial crop. In an efficient market the fair value of water will reflect its scarcity value. In drought periods the price of water will be high and will trade to its highest value use. In this process some farmers may not be able to buy the water that they need at a commercially viable price and this may result in them permanently losing some or all of their perennial plantings. This is an unavoidable part of operating farm businesses in locations where water availability is uncertain. Cobram’s concern is that these unavoidable risks are exacerbated significantly by investor activity during drought periods. Moreover, we believe this will be increasingly the case as more investors enter the market and the institutional investors already in the market become bigger.

The consequences of over-priced water escalate as the length of a drought increases. In a short drought, over-priced water may be sufficient to price-out annual crops, and perhaps some perennial plantings may be let go, but farm businesses facing these higher prices are likely to have the ability to recover the following year. However, a drought extending multiple years with prices consistently above fair value is likely to have a more harmful impact on the longevity of agricultural operations and the local economies in which they operate. Such a scenario is likely to lead to bankruptcies and exits from the industry and the community.

Paradoxically, water carry over rules that were originally designed to allow farmers to hedge against drought, can provide non-consumptive users with leverage during severe drought conditions to increase their expected returns with minimal risk. For example, a managed water fund will have a risk-return target when it enters the market. If,

during a drought, the fund can sell a proportion of its holdings (say 70%) and achieve its target return then the remainder of its water holdings can be carried over as a speculative investment that could be worth nothing in the future if the drought breaks or could be worth a lot more if the drought continues. The investment returns to the fund become skewed to the upside. For example, if the sale of 70% of the fund's holdings generated 20% return at the fund level (or about 29% on the 70% of water sold) then the worst that could happen to the fund if they make a mistake and cannot not sell the remainder of their holdings (i.e., the drought breaks and they let the water run out to sea) is to return 20% to their investors. On the other hand, if the drought continues the remaining tranche of their water holdings (i.e., 30%) will earn more than 29% return and the overall return to the fund will be greater than 29%. This skewed distribution of returns in drought conditions provides a strong incentive for non-consumptive investors to engage in highly speculative behaviour. While the negative consequence of this behaviour are relatively small for non-consumptive investors, the impact on farmers and local communities can be devastating.

Cobram understand that concept of "fair value" is clear in economic theory but much less clear in practice. Our key point is that over-priced water during drought conditions can have devastating impacts on farm businesses and local economies. As such, getting a better understanding of what fair value is for water in drought conditions and what behaviour can drive prices above fair value should be a priority for government. The scientific evidence suggests that the frequency and severity of droughts is likely to increase so it is more important than in the past for the government to reassess the role of investors in the market during drought periods and the consequences for farmers and communities of distortions caused by misuse of market power or mis-calculation of fair-value.

Cobram's observation is that too much capital is being attracted to managed investment funds focused on water. Over a long period of time we believe our point will be proven because the over-investment will result in poor returns for investors and the amount of capital invested in these funds will fall back to level that can sustain normal returns. This may take a couple of drought cycles to play out and provide the information and experience required for investors to properly assess the returns of investing in water. In the meantime the "wall of money" flowing into these funds will create excess demand for water in drought periods and lead to prices above fair value. Hedge funds and other water funds have made very large returns for their investors in previous droughts. This result can be used to promote the attractiveness of water investments to people and institutions seeking new investment opportunities with the promise of high returns that are uncorrelated with traditional investments. Every dollar invested in a water fund must be used to purchase water. If too much money is invested in water the price will be bid up above its fair (equilibrium) value. A possible analogy can be found in momentum trading strategies where a shock creates upward momentum in prices, which draws more money into the market, that pushes the price up further etc. In the water market, equilibrium will be restored in one, or both, of the following ways – farmers go out of business so that the demand for water collapses or the drought breaks so supply increases. If the drought breaks before farms become distressed then the consequences of such behaviour may not be so damaging (but may cause stress to farmers) however, if it takes some time for the drought to break, a prolonged period of water prices being above fair value will be damaging for the farm sector (e.g., forcing some businesses into bankruptcy, crop losses, reduced scale etc).

Socio-economic Impacts

In the above sections we have focused on the economics of the water market and drawn attention to the adverse socio-economic consequences at a general level. In summary, whether distortions in the water market are caused by the deliberate misuse of market power by investors or over-investment in water funds the outcome will be very similar. In drought conditions water prices will be above fair value and this will result in potentially devastating socio-economic consequences for local communities.

In this final section we draw attention to the potential human consequences of market distortions in drought periods. In times of drought, a clear link has been demonstrated between irrigators' poor mental health and financial hardship and water uncertainty (Wheeler 2018). These mental health impacts on irrigators and the associated consequences for their families and social environments will be exacerbated if abuse of market power and over-investment in water add to the financial hardships associated with drought periods.

Over-priced water will reduce overall agricultural production and skew the mix of activities away from lower value crops toward higher value crops. The transition toward higher value uses may mean more efficient water use practices, lower labour resources, and higher export value for the economy, but this may come at the expense of regional economies and towns. Consolidation and concentration of farm activities reduces the depth and diversity of regional economies, which may lead to economic and social dislocation as businesses and people choose to leave the region. As noted earlier, the pace at which such structural change occurs is important. Structural adjustment costs will be high when the transition is abrupt and disorderly (e.g., financial stress in the farm sector and in the local economies that support the farm sector). Disorderly adjustment in regional communities can have devastating social consequences when those that choose to leave are the youngest, most able members of the community. This leaves behind the elderly and most vulnerable, diminishing the resilience of the economy and the community.

Cobram's firm view is that the government needs to ensure that the activities of investors in the water market do not create distortions that exacerbate the economic and social hardships faced by farmers and their communities during droughts.



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BY INDUSTRY

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11 November 2019

The Hon Lisa Neville

Minister for Water

The Hon David Speirs MP

Minister for Environment and Water

The Hon Melinda Pavey MP

Minister for Water, Property and Housing

The Hon Dr Anthony Lynham

Minister for Natural Resources, Mines and Energy

The Hon David Littleproud MP

Minister for Water Resources

Dear Ministers,

Urgent intervention needed to free up water markets

This letter is written on behalf of the following industry commodity representative bodies: Australian **Almond** board; **Citrus** Australia, Australian **Olive** Association, Australian **Table** Grape Association, Australian **Grape** and **Wine, Pistachio** Growers Association, Australian **Walnut** Industry Association, **Summerfruit** Australia, **Hazelnuts** Growers of Australia and **Chestnuts** Australia.

Much has been made of the drought impact on the dryland farming community and rightly so, but our irrigated industries are also facing an existential threat.

You will be well aware the drought is driving up temporary water prices. While we recognize this is in part the result of supply and demand under extremely dry conditions, speculative trade is amplifying the drought impact on the southern Murray-Darling Basin (sMDB) water market. For many family and larger enterprises, this additional price pressure will be the difference between surviving the drought or going bankrupt.



The Murray-Darling Basin Plan aims to sustainably apportion limited and valuable water resources between environmental and consumptive use, without negatively impacting on river communities. That goal is **not** being realized, as the water market is not working in the best interests of irrigators. Without immediate intervention, agricultural businesses across the southern MDB will soon suffer irreparable damage, and the associated industries and river communities will likewise suffer.

While temporary water can be expected to be more expensive during drought, we have two key concerns:

- The presence of water speculators is increasing the temporary water price beyond what would be expected under the current supply and demand conditions. It is evident during the last irrigation season that speculative buying of temporary water resulted in material upward pressure on the market. This is dramatically affecting farm viability.
- Recent changes to trading rules combined with increasing compliance demands on irrigators to maintain positive water accounts at all times has meant that they must buy earlier in the season. This has materially distorted normal market supply and demand balance to our detriment. In times of low water availability, it also leads to greater early season market volatility, which can affect water prices for the remainder of the season. At the same time, speculators and traders are taking advantage of carryover rules (originally designed to help irrigators manage risk) to short irrigators of water.

In the 2018-19 season, we understand one water investor purchased an estimated 140 GL (140,000 ML) of temporary water. To our knowledge, this company does not own land and has no direct consumptive use, so it can only be assumed the water was intended for speculative trade. To put this volume in context:

- In **Victoria**, the estimated Lower Murray Water districts total combined water use in 2017-18 was **104,000 ML**¹. Total annual irrigation use for the Mildura and Red Cliffs districts was approximately 94,000 ML in 2017-18².
- In **New South Wales**, according to the ABS the total estimated water use in NSW Murray and Riverina districts for "Fruit trees, nuts or plantation berry fruits" in 2017-18 was **111,900 ML**³.
- In **South Australia**, the estimated total irrigation applied to almonds in 2019 was **122,930 ML**⁴.
- Total Water use in **Murray Irrigation district** in 2018-19 was **296,149 ML**⁵

While this trading activity may be permissible under current laws, it is clearly not delivering on Murray-Darling Basin Plan objectives and is adding to the hardship of drought-affected businesses. It is highly likely the temporary water price in 2018-19 was materially higher due to the behavior of speculators and some brokers. Many irrigators used all available cash reserves when water prices should have been much lower. They are now not in a financial position to buy water again at even higher prices now. This has been particularly devastating for the dairy, rice and cotton sectors who wore the brunt of water scarcity and high prices last year.

¹ https://waterregister.vic.gov.au/images/documents/Water-Market-Trends-Update-2018_web.pdf, p2.

² Lower Murray Water Annual Report 2017-18; https://www.lmw.vic.gov.au/wp-content/uploads/2018/09/LMW-2017_18-Annual-Report-Full.pdf

³ Australian Bureau of Statistics 46180DO001 201718 "Water use on Australian Farms 2017-18"

⁴ PIRSA, Pers Comm

⁵ https://www.murrayirrigation.com.au/wp-content/uploads/resource/2019/10/Interactive-Annual-Report_online-version.pdf

We would also like to make ministers aware that we have many reports that banks funding irrigators and businesses in the southern MDB are getting very nervous due to the high demand for increased debt facilities to purchase water. Lending criteria is becoming very stringent and loans for many are unattainable.

Water speculation during a drought may be legal but enforces hardship on others. Would it be acceptable, for example, for an investment company to accumulate supplies of fodder during the current drought and withhold that from livestock farmers in order to sell it later at an increased price?

It is such a serious issue for irrigators who have no choice but to buy water to keep their business going and is particularly devastating for family farmers who often don't have the financial resources or options available like corporates. Many family farmers are already in a desperate and dire situation. The flow-on effect to rural communities who rely on irrigators cannot be overstated.

To quote former Harvard Business School professor Jonathan West *"I think the behaviour of some water traders during this drought could be compared to speculators hoarding food during a famine, to drive prices up. Its immoral, and it's got to stop."*

Water market reviews underway

We support the two initiatives currently underway, with final reports due by the end November 2020:

- ACCC Inquiry into Water Markets in the Murray Darling Basin (**Inquiry**); and
- Senate Select Committee on the Multi-jurisdictional Management and Execution of the Murray-Darling Basin Plan (**Select Committee**).

URGENT – Proposed interim solutions

Noting the Inquiry and the Select Committee will not report for more than a year, we request the Australian and Basin State Governments urgently implement the interim solutions below:

1. **Only water users can purchase temporary water allocations** – anyone who is not an irrigator with direct consumptive use or does not have a pre-existing bona fide supply contract to an irrigator cannot purchase any temporary water allocations in the Southern MDB.
2. **Only water users holding permanent entitlement with a carryover facility can carryover water from one season to the next, subject to the following limitation** – this carryover volume cannot be higher than their direct annual consumptive use and cannot be sold or loaned to another party for their use.
To protect against unintended consequences, hardship or pre-existing contractual arrangements, a threshold could be considered. For example, non-water users (including related parties) with cumulative allocation account balances lower than 2GL or \$2m (whichever is triggered first) may be still be able to carryover.

Immediate action is urgently needed in line with the serious challenge imposed by the drought. It's not just the potential for economic damage, but the human cost with many accounts emerging of suicidal irrigators.

Time is of concern as we approach a period of increasing water use for most irrigated crops over summer. Without some form of immediate relief, it may will be too late for many farmers, business and regional communities.

We respectfully call on you and your Government to collaborate with other Basin State Governments and the Commonwealth to explore measures to free up more water for trade. There is no time to lose. The seriousness of this issue warrants an emergency response, and bipartisan, cross-border commitment.

The proposed interim solutions are sensible and benign and should be implemented urgently.

We would appreciate the opportunity to meet with you to discuss these issues in more depth.

Yours sincerely

Tony Battaglione

Chief Executive

On behalf of the following industry bodies:

