



# **SUBMISSION TO THE INQUIRY INTO MURRAY-DARLING BASIN WATER MARKETS**

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## **INTRODUCTION**

Citrus Australia is the peak industry body for the national citrus industry.

The citrus industry is one of Australia's largest fresh produce exporters, with export volumes increasing from 158,000 tonnes in 2014 to 252,000 tonnes in 2018.

As a result, the Australian citrus industry contributed in excess of \$800 million to the GDP through farm gate sales in 2018, including \$480 million in citrus exports alone.

While the industry's size and output is significant in Australia, it comprises less than three per cent of global production and is one of the highest cost producers in the world, relying on its reputation for quality and safety to command premium prices in high paying export markets.

The Australian citrus industry is one of Australia's largest horticulture industries, with commercial production spanning 26,000 hectares across five states and one territory. It is estimated 20 percent of the citrus businesses in Australia produce 70 percent of the volume; 70 percent of citrus businesses are 100 hectares or less, 40 percent are between 5 and 20 hectares.

The citrus industry is a major employer in regional and rural Australia, with an estimated 25,000 people employed in citrus production, and more employed in allied businesses.

Approximately 73 percent of the citrus industry is situated across the Lower Murray Darling; the Riverina, centred on the towns of Griffith and Leeton New South Wales, is the largest citrus producing region, with 30 per cent of the nation's area under production.

The Riverland in South Australia, including Renmark and Loxton, and the Murray Valley in Victoria, including Mildura and district, each comprise approximately 22 and 21 per cent of the nation's area under production respectively.

Citrus Australia facilitates market access for growers and export expansion by eradicating barriers to export markets, through government liaison; driving the Australian Citrus Quality Standards to maintain fruit quality; and developing more effective export promotion programs.

It also works with growers and government departments to improve biosecurity; agrichemical best practice, awareness, and adherence to Maximum Residue Limits; and coordinates industry research and development.

Whilst Citrus Australia does not own or trade water directly, it represents almost 1,600 grower businesses that do, approximately 70 per cent of which are based in the Murray Darling Basin.

### **About this submission**

This submission has been composed based on Citrus Australia member consultation; Citrus Australia's grower base is broad and reflects the divergence in views across any community in the lower Murray Darling Basin.

The submission gives voice to a range of grower opinions which do not necessarily reflect the official policy or position of the Citrus Australia Board.

## **BACKGROUND**

From its conception in the early 1900's irrigation schemes have been based on the principles of water conservation and drought proofing.

Historically, the Murray Valley citrus growing region (Central Murray) became a hub for agriculture when former Prime Minister the Honourable Alfred Deakin held a Cabinet position in Victorian Parliament, and identified Mildura as a prime location for irrigation development by the Californian Chaffey brothers.

Alfred Deakin introduced the first legislation in Australia to promote an irrigation system, and George and William Chaffey signed an indenture with the State Government in 1887, to create the Mildura Irrigation Colony.<sup>1</sup> They also began similar works around Renmark in South Australia, the Riverland citrus growing region (Lower Murray) after an offer by the then Premier of South Australia, Sir John Downer.<sup>2</sup>

Irrigation was an important part of the growth of the Riverina after the demise of riverboats in the region; in 1915 the River Murray Waters Agreement had allowed 26 weirs to be constructed. When riverboats were no longer used, the primary focus was on the provision of water for irrigation. The Murrumbidgee Irrigation Area was established in the Riverina in 1912, created by the diversion of water from the Murrumbidgee near Narrandera. Hume Dam was one of the first water conservation works in the Murray River Agreement and work began in 1919.

After the First World War, a soldier settlement scheme was introduced in each Australian state in an effort to repatriate servicemen. Along the banks of the Murray River, through New South Wales, Victoria and South Australia, many small parcels of land were gifted to establish fruit industries.<sup>3</sup>

As intended by the State Governments, the Murray Valley, Riverland and Riverina regions flourished as irrigation settlements, stimulating strong local economies through the growing of dried fruit, vegetables, table grapes and citrus.

Recent issues in the Murray Darling Basin cannot be attributed to any one issue, rather the combination of prolonged periods of drought in the catchment, the introduction of the Murray Darling Basin Plan, poor management and implementation of the Plan by various authorities, an unregulated water market, unrestricted development in the Basin, rapid expansion of permanent plantings, physical constraints in the river system and the extraction of environmental water have each contributed to today's current situation in the Murray Darling Basin.

In conducting consultation for this submission it is clear that there are very few people that can see the river system as one large system; many parochial long held views are not based in fact and in the current populous political environment these views can lead to bad policy making to appease a noisy few. Most worryingly there is clear evidence of poor management by successive government's including ill-conceived schemes which have cost some communities, businesses and families dearly and in too many instances have driven irrigators and others to suicide.

## **ISSUE 1 – MARKET TRENDS AND DRIVERS**

*Changes to availability and demand of water, the effect on industries, regions and technologies, and the impact on water markets over time*

Historically, in citrus growing regions through Central and Lower Murray, water was tied to land and growers did not depend on entitlements and annual allocations to irrigate. They were allocated enough water each year to irrigate their crops (averaging between nine and 14 megalitres per hectare per year, depending on the district) usually unmetered, and anything they did not use was returned to the pool for the next season. Water was not a commodity that growers lost sleep over due to high costs, or low availability.

For many citrus growers, it still sits uncomfortably with them that this ever changed. That titles to water and land were separated. As many describe it, imagine buying a house and then being told each year how much of the house you are allowed to live in. Many growers feel that this is where all of their water problems began.

In the late 1960s, a drought caused high salinity impacts along the Murray, particularly to salt sensitive crops such as citrus. Thirty per cent of permanent plantings between Murray Valley and the Riverland were lost. Through to the 1980s and 1990s, this was a catalyst for more efficient watering technologies, such as drip irrigation and plant or soil moisture monitoring, which has allowed more efficient and sustainable use of water, rather than flood and overhead (as low as six megalitres per hectare, but on average eight megalitres per hectare).<sup>4</sup> The value of water has driven on-farm efficiency, as water saved can be sold or used for business expansion.

In 1969, the South Australian government capped how much water could be taken by the entire state for irrigation purposes (a total of 500 gigalitres) because they had an over allocation of resource. Victoria and New South Wales did not follow suit.

Through the 1970s to 1990s, interest in larger scale horticultural development on new land outside of the existing irrigation districts increased. Initially water licenses were granted subject to the land being satisfactorily developed over a time frame (usually ten years) and this was reallocated if not developed.

With continuing pressure for development, and some regional areas unsuitable for irrigation which was impacting on river salinity, Transferrable Water Entitlements were introduced. This meant that water could be transferred from one parcel of land to another, but the water still remained with the land.

The intent was to move water to its highest value use. History has shown that as industry circumstances change, and water moves, the impact on regional communities both financially and socially is severe.

By the 1990s, the price of dried fruit and citrus dwindled due to the reduction of import tariffs and the increase of imported fruit and juice concentrate into Australia. The water market was introduced when food commodities were at their lowest price. Throughout the regions, growers turned to producing wine grapes and fresh fruit such as citrus, which required industry to develop bigger export markets and export protocols.

During the Millennium Drought, from 1996 to 2010, water was unbundled across the three states and became a tradeable entity. The water market was new, and immature. Some saw this as an opportunity to become involved in a market where profit could be made, as it lacked regulation and transparency.

The Murray Valley and Riverland regions have now become popular for new horticultural plantings such as stone fruit and almonds, along with the continued profitability of citrus, table grapes, wine grapes, and dried fruit. Cotton is also grown further upstream. The Riverina has moved from its traditional base of annual cropping to more permanent plantings putting further long term pressure on water availability. Irrigators above the Barmah Choke see an opportunity for permanent planting with less risk of deliverability of water to those west of the choke.

Citrus markets have expanded, particularly in China where exports have risen from 500 tonnes annually in 2011, to 75,000 tonnes in 2018, with the majority of fruit coming from the Murray Valley and Riverland regions. Exports from the Riverina have begun to grow and many Valencia orange growers are grafting or replanting exportable table fruit varieties (Navel oranges and mandarins).

More digital technologies have also effected water use, with the ability of drones to monitor citrus orchards and capture irrigation leaks mid-row, where typically these may have gone unnoticed. Smart phones have allowed growers to have information at their fingertips, with access to internet for research, online education, apps to assist with managing the business, not to mention the ability to manage their crop irrigation systems and be more water efficient.

There is an increase in the demand for water in Central and Lower Murray for several reasons, some of which include:

- Large almond, table grape, olive and citrus plantations that require water for production, a large proportion of which are still approximately five years from full maturity;
- The implementation of the Murray Darling Basin Plan (MDBP) and the Commonwealth buyback for environmental water which has taken approximately 25 per cent of water away from other water users;
- Increasing drought conditions, and a worsening seasonal outlook in the coming years;
- Restrictions on Inter-Valley Trade meaning water that previously supplied the Lower Murray from the Murrumbidgee and Goulburn rivers is reduced.

### *Forecasting price movements*

Growers report finding it very difficult to access the data needed to make good, timely decisions when forecasting where they feel the market will go in the short, medium and long term.

Like any commodity market, it all comes down to risk, and minimising that risk requires research, learning the system, and staying up to date with current events. A better understanding means a more informed decision. Forecasting may be based on weather information from the Bureau of Meteorology (BOM), such as prediction of level of rain or of very dry summers, effects of El Niño and La Niña; or on peak periods for irrigation in horticulture industries that are located in the Murray Darling Basin.

Whilst some growers have taken a special interest in the water markets, most small businesses find that they don't have enough time to monitor this closely on top of daily tasks managing their business, and therefore put their trust in brokers to advise them when the best time is to buy.

## **ISSUE 2 – MARKET TRANSPARENCY AND INFORMATION**

### *Use of market information*

For many small to medium sized growers (40 per cent of growers have orchards between 5 and 20 hectares), it can be a time consuming and stressful process to make a decision on the best time to purchase water, particularly when the market is in short supply as it is currently, and prices continue to rise.

Growers utilise the following methods to stay up to date with the market:

- Calling a trusted broker, or sometimes more than one, to get more accurate predictions in a range of focus areas;
- Viewing prices on the state water register, although these prices are generally a 7-10 day median price and so are not entirely accurate;
- Viewing the amount of water in storage facilities on the state water register, however growers are unable to view how much carryover is being held;
- Viewing the BOM website and trying to predict the level of inflows;
- Receiving alerts from brokers via phone, email, and text, or by checking their websites;
- Receiving alerts from the state water register to advise what is in storage via email and text, or by checking their website;
- Talking to other knowledgeable irrigators;
- Applications, such as the Water Market Watch app.

Growers also observe what else is happening in the Australian and international agriculture industry that might impact the market. It is estimated that once the price of temporary water is more than approximately \$250 per megalitre that many dairy farmers no longer find it viable to buy. Once it is more than \$350 per megalitre, many annual crops such as cotton and rice will not be planted. If the world cotton price is low for example, Australian cotton growers will likely sell their water for profit, or lease it, rather than grow a crop.

Growers face some challenges with the availability, accessibility, accuracy, consistency and timeliness of information on the water market. Some examples of grower feedback below:

- As prices on the state water registers are generally a seven to ten day median price, the prices can change erratically and the average can hide important detail. There are six week delays for permanent entitlement trades that are made on paper to appear on the Victorian Water Trade Register, and therefore a six week delay on accurate volume availability. Real time volume data, and therefore price data, would create a more transparent market not prone to wild fluctuations.
- The timeliness of government announcements about upcoming changes in the market can have an effect on pricing. Sometimes when the price is forecast to rise, growers may stock up on water purchases at a high price. Soon after, the government announce that water is being released from storage, which will bring the price back down. There is no lead time for these changes in order to plan ahead. Other times, there appears to be a lot of movement in the market just prior to a government announcement, which causes panic.
- There is not enough information available regarding the Inter-Valley Trade. They do not understand how this works, when it will open or close, nor why, and generally can't

compete with automated purchasing systems that snap up all of the water the second it becomes available.

Trading on the market is time costly more than anything, and the lack of transparency means that growers don't know what other participants are trading, nor the accurate volume on the market.

### *Understanding of market information*

Whilst all growers potentially receive the same information in terms of quality and timeliness, the size of the business often dictates what is done with this information. Information on prices is made public and announced regularly by water authorities, and growers can subscribe to updates from brokers. All growers have access to this form of information instantly.

Corporate growers can task the responsibility of monitoring and acting on this information to a member of staff. Smaller growers who perhaps aren't as computer literate, have more difficulty staying up to date with this information and as a result some rely solely on phoning brokers for updates. Acting on information for smaller growers can be more cumbersome and may not be with the most accurate or up to date information at hand.

As most citrus growers are small to medium sized, unless they have a special interest in water, they rely quite heavily on intermediaries to provide them with accurate, timely, and honest information and advice. They do not have time in the day to day management of their business to be fluent in the movements of the water market themselves.

There are also automated applications that instantly buy water when it reaches a set price, or when a more commonly closed river system opens for trading. This technology comes at a price and those that can afford these apps have an advantage.

Growers understand that there are a number of sophisticated investors that are available to monitor the markets on a full time basis. This includes accessing satellite information about what crops are being planted, their location, life span and water requirements. They can then overlay this information with global prices in horticulture to gain an understanding of potential grower revenue; overlay with information on atmospheric shifts and long term effects on weather; follow government announcements and updates to understand what inflows are likely to be; and make much more accurate predictions on how to use water market products to suit their needs, which do not include water use.

As a full time profession, water traders are more aware of the tricks of the trade, of loopholes in legislation, and how they can make the highest profit which may be legal, but may be unethical.

The average small to medium grower cannot compete with this level of investment into water market knowledge, when their purpose is to use the water to grow food and fibre, and not to profiteer purely on trading.

Feedback from those consulted, details the ease of access and understanding of the following information:

### **Trade prices and volumes**

Each state has a water register that lists the individual trade, volume and price. Once the correct section of the website has been found, this information is easy to understand, particularly for the temporary market. Timing of the trades from agreement, to being listed, varies between the states. Victoria publishes a seven day median price, therefore the information is not timely. South

Australia takes ten business days to process trades, therefore information can be very out of date by the time it is listed, depending on the volatility of the market at that time.

The time frame for permanent trade reporting is approximately six weeks from purchase date to the completion of the trade, due to the trades being processed through the respective water title offices in the states where the water licence is held.

As detailed above, a live central trading platform would make access to this information more accurate and efficient.

### **Trading rules and operation of constraints**

Water brokers are very familiar with trading rules and can easily check where water can be traded. This is something growers become accustomed with over time, however for growers who may not be very computer literate, this can be a confusing process, therefore most depend on brokers.

In terms of constraints, the state water registers provide easily accessible information for a quick guide, however this requires some interpretation.

The Inter-Valley Trade limits are available on the Murray-Darling Basin Authority (MDBA) website, and state water register websites. They are helpful if growers know where to access them, but take some time moving between websites to gain a full picture.

### **The characteristics of water access entitlements and other products**

There is a general hierarchy of water entitlements in each state and as such, reported by the relevant state water registers. New South Wales is more difficult to interpret, as it comes from two different sections of state government.

Some water brokers work closely with growers to ensure they have a good understanding and interpretation of this.

### **Carryover provisions / arrangements**

Carryover can be somewhat confusing for growers, depending on the region. In South Australia, the amount of carryover is only announced annually, therefore it is difficult for growers to make plans any earlier. Growers must seek out this information, depending on whether it is at a local or state level.

Carryover parking information is predominately provided by water brokers, although as the understanding of these options increases, some irrigators are working directly with each other.

### **Water ownership structures**

Growers report there is a lot of confusion around this, especially where water is purchased or transferred to superannuation funds.

### **Water availability**

Growers can easily source information on water availability, with fortnightly reporting from state water authorities for the first six months of each year, followed by monthly updates depending on the water zone being reported on. This can also be found on state water register websites, and mobile phone applications.

### **River operations**

Similarly, growers can access information on river operations via the MDBA or state water authority websites.



## **Weather and climate**

The BOM provides forecasts that are monthly, quarterly, and longer, and are updated regularly.

## **Water use**

Water use is difficult to determine. Information has to be ascertained from a number of sources based on change from start of season storage levels, a forecast of carryover in each state, inflows, and MDBA and state reports.

The trade market provides no indication of water use based on a supply and demand system. If a grower uses more than one broker, their water parcel could potentially be listed on many broker websites, therefore giving a false sense of supply.

## **Environmental water ownership and use, including trade**

This is difficult to determine due to the range of ownership of environmental water from Commonwealth to States, and in some cases philanthropic companies, or individual purchases.

### *Other types of water information*

Growers in the Murray Valley stated that the water market through the MDBA should provide price and volume information that is timely and accurate and includes all states; a central trading platform for the tristate area may be able to provide this in a simplified way.

A central trading platform would be helpful as it would allow growers to quickly compare prices and volume availability in one place, enabling them to make informed decisions on the most appropriate time to buy. The role of a small grower can be quite demanding, having to manage not only growing and harvesting, but their staff, budgets, market access, agrichemicals, biosecurity and so on. A central platform would allow them a little more control in monitoring the market themselves, to feel confident that trades made by the broker on their behalf are in their best interests.

The idea is that the trading platform would bring uniformity to the tristate area in terms of data, regulation and compliance, but not attempt to affect uniformity of entitlements and allocations.

Growers would like to see more predictions in annual allocation amounts, to give them a better estimate for planning. Victoria's more conservative approach of starting low allocations and slowly increasing makes it difficult for growers to plan and can cause panic buying unintentionally as signals are misconstrued.

In the Riverland, industry and community groups have lobbied for the government to provide a live matrix with easy to follow information. This would allow them to more quickly assess the current situation and decide if it is a good time for them to purchase water. The matrix would show, dates, water availability in dams, weather outlook, likely inflows, likely allocation, and so on. This initiative if taken to a central platform would benefit irrigators along the entire river system.

### *Level of transparency*

At a recent consultation conducted by Citrus Australia regarding water market transparency, growers indicated that those who would benefit most from 'full market transparency' would be brokers. Full market transparency in this instance is taken to mean all details of a trade, including personal information. Growers felt that because brokers are employed to have a thorough and current understanding of the market, they would have the time to watch growers' trades and access their personal and business information. Growers felt this would provide opportunity for predatory behaviour from traders who may be acting unethically. Growers felt that transparency

in the water market should be transparency of temporary trades, rather than transparency of personal information and individual Allocation Bank Accounts (ABA) for example.

Growers felt that full transparency would provide a greater insight into whether water funds have the ability to cover forward positions, however this could also be detrimental to growers. If traders can estimate what the demand is, and find it is higher than what they can supply, they can increase their price up excessively and create a bidding war, which will naturally push the rest of the market up even further.

Whilst growers feel that full market transparency would have the reverse effect of its intent, and further victimise smaller to medium sized businesses, they are still interested in a formula that would enforce transparency around the major players in the market. This may be similar to the Australian Stock Exchange (ASX), where traders must publically declare when they own over five per cent of a company. Compliance and regulation would be a significant factor, and traders would need to declare linked accounts or conflicts of interest.

There would need to be alignment between state based registers, or a central trading platform between all three states.

Transparency could be achieved without the need to challenge the privacy act, and should focus on providing information that enhances a grower's ability to understand the current supply and demand.

### **ISSUE 3 – REGULATION AND INSTITUTIONAL SETTINGS**

#### *Effectiveness of current regulation*

Whilst the unbundling of water from land created many opportunities for water efficiency and risk management for growers, it has also led to water being sold as a commodity; which in turn created opportunity to invest in water solely to derive profit through transactions rather than agricultural production.

In 2014, to fall in line with the MDBP, the ten per cent limit on non-water user ownership of entitlements, which was designed to prevent 'water baron's buying excessive amounts of water', was removed. Earlier, in 2010, the ACCC 'did not consider that it was necessary or appropriate to prevent non-landholders purchasing water allocation.'<sup>5</sup>

Growers believe that due to a lack of regulation and transparency, these conditions have enabled some traders to speculate on the water market. Growers were opposed to offshore investment in the water market. Growers were opposed to water traders building such volume that they are able to influence the price of water. These traders have the capacity to buy water in large volume, hold onto it to drive up demand, then sell it at extortionate prices when water is scarce, negatively impacting the lives and livelihoods of the people who so desperately depend on it.

Growers would like to see more regulation around the capability of non-irrigators to buy temporary water, the capability to carryover water, and the length of time which they can hold this water for. Ultimately growers felt that without a genuine use for water non irrigators (speculators) did not have a place in the water market.

It is industry's understanding that the intent of unbundling land and water was to free up water to be used by other irrigators as water became more expensive due to natural events; speculators turn these often catastrophic events into profit making opportunity which industry objects to in the strongest possible terms.

#### *Understanding of government roles and responsibilities*

The majority of growers find that trading and ownership of water is very complicated, unless they have taken a special interest in the topic. Generally they understand that each state is responsible for its own water, that each chooses to allocate it differently, and that there are different catchments. Some feel that there is pushback between states and the federal government as to who is responsible for what. They are not generally familiar with policies on regulation, or roles and responsibilities within government, though they do not expect to be, as their focus is on growing. They do however, expect to be able to get accurate, consistent information on water price and volume.

As the national body, Citrus Australia staff also found it challenging to understand this system and to communicate it accurately to growers. In the Murray Valley region, growers live on either side of the Murray, yet cannot access the same amount of allocation, cannot use products the same way, and even the terminology is different between states. Whilst some face restrictions such as the moratorium on new plantings in Victoria, growers in New South Wales continue development and planting new crops. This has led to growers trading in different catchment areas in hopes of finding better prices.

The consensus amongst growers is that the system should be better managed, that at a federal level more levers ought to be pulled to encourage or persuade the State governments to fulfil their requirements under the plan. The current crisis situation may never be resolved to the degree

required, due to the negotiations, challenges and delays one would expect trying to come to a mutual decision between four governments, whose terms in parliament do not align. Advice from governments are for growers to plan very far ahead, however growers find this a challenge when policies frequently change which may negatively impact long term decisions they have made in order to manage risk.

Those consulted felt that governments need to take notice of the studies that have been conducted on the ability to deliver water to existing plantings in the southern Murray-Darling Basin. Currently there is no regulation pausing the continued purchase and development of horticultural land in the Central or Lower Murray areas, despite there being evidence that there is not enough water.

Aither's analysis of water availability and existing permanent horticulture water demand (at full maturity) in the lower Murray region, suggests that directly available consumptive surface water supply within the lower Murray may only meet approximately 40 per cent of total existing permanent horticulture demand under an extreme dry water availability scenario (similar to 2007-2008).<sup>6</sup>

Currently, as per the Murray-Darling Basin Agreement, the River Murray system is in Tier 1 (normal water availability), Special Accounting.<sup>7</sup> The system was in the same position for most of the Millennium Drought, save for a short period where it dropped into Tier 2 (very low water availability). Lower Murray Water has initiated their Drought Response Plan with the seasonal outlook for 2021 being drier than 2020, the Murray Valley region is in stage one water restrictions, and a number of surrounding towns and farms have lost access to water completely. It seems that we are reaching 'an extreme dry water availability scenario'.

Respondents in the Murray Valley were supportive of the Victorian Water Minister's decision to defer from issuing new water licences for extraction without individual assessment and confirmation that there will be no increased risks to entitlement holders, or the environment. Growers strongly support that NSW Government follow this initiative.

### *Constraints*

Growers expressed concerns that there are numerous significant restrictions on the river, and that the Barmah Choke is increasingly impacting on river managers' ability able to deliver water downstream to meet daily requirements and commitments. A 2009 study by the MDBA found that '*the limited capacity of the Barmah Choke currently restricts the ability of the River Murray system to meet the demands of irrigators and other water users and to manage high summer flows through the Barmah-Millewa Forest*'. Growers strongly support the notion that the government invest in infrastructure to minimise the impact of the choke; some suggestions include downstream water storage (additional weirs) or bypassing the choke via channels or pipes. Growers are tired of successive governments using the Barmah Choke as a political tool.

Growers have suggested that on-farm storage will be required for future emergency situations.

Growers feel that metering and monitoring in Victoria has always been very effective and accurate, which was further enhanced by automatic metering, and the opportunity to hand back allocation in order to fund water infrastructure. Most indicate however that metering and monitoring essentially does not exist in NSW. There are many anomalies allowing the meter to be placed inconsistently, and therefore measuring inaccurately. This has also allowed the establishment of many unregulated dams on private properties. Some growers indicated that all meters should be positioned at the point of entrance of the river only; that more flow meters should be positioned on the river itself, and along creeks that flow into the Murray, to gather evidence of the actual

amounts flowing in the river. Growers felt that a consistent approach to metering across the basin is needed and a best management practice approach be taken.

Whilst there has always been water available, growers feel that the river system is getting more stretched. Growers continue to buy temporary water at high prices of close to \$1,000 per megalitre, as they must grow a crop to bring in income, and pay off their investment. Currently it is still a choice, however growers are beginning to question if, in the near future, they will be able to buy water at all.

### *Impact of current market settings*

Carryover mechanisms impact annual allocation for growers each year. The government strongly encourages growers to manage risk by using carryover to store for drier years. This is beneficial for generally no more than one dry year, and can have a negative impact on growers. Though they have paid for a full entitlement, if there is carryover they receive less allocation the following year, as there is still water left in their 'bucket'. If it rains, they are punished by losing what they have paid for to 'spill'.

In NSW, carryover is not available to assist with risk management for high security water holders, only for general security, which is more attractive to investors rather than irrigators.

There are mixed feelings when it comes to the level of regulation required for water brokers. Currently, anyone can apply to the Victorian Water Register to be a broker, as there is no accreditation system (this is similar in all parts of the Southern Connected System). Some feel that brokers should have to apply for a licence, similar to real estate agents, where they can risk having their licence revoked if they are found to be acting unethically. Statutory declarations for broker use of the trading platform could also be tightened.

In the current system, brokers are able to buy for one price and sell for another, without being transparent to their clients. They have the ability to take their own profit in addition to commission, rather than acting in the best interest of their clients to find the most appropriate price and pass on that savings, and can charge on both sides of the trade.

Other growers are concerned that a tight regulatory system and training for brokers would mean that fees would become more expensive. They would prefer that there is more transparency in brokers' actions, and that growers should be able to report believed unethical behaviour, to be further investigated. Itemised transactions on statements (for example, showing how a parcel of water was accumulated) would be a useful improvement. The threat of potential auditing keeps people honest, and brokers could be audited by the Australian Tax Office or other federal authority.

Growers find understanding the different administration practices, systems, and rules between Basin states difficult and rely on third parties to navigate these. This means that growers do not have a good understanding and are unable to easily verify what they are being told.

## **ISSUE 4 – MARKET PARTICIPANT PRACTICES AND BEHAVIOURS**

### *Participant use of water markets*

Many citrus growers reported owning high security water entitlements and depend on receiving an adequate allocation each year, with reserve funds to purchase temporary water should the allocation not be sufficient for watering their crop. If water is scarce, crops are watered less, which results in a lower yield, and therefore lower revenue.

Some growers have indicated that if water were still bundled to the land, growers could use these water market products as they were intended. Instead, they feel that these products are being used by non-irrigators to manipulate the market. Some feel that they only needed to start using these products when the MDBP commenced.

New entrants to the industry have bought land without water and rely solely on the temporary market whilst plantings are young. This strategy is more difficult in current conditions and puts large financial investments at risk. To an extent, some longer term growers that suffered through the Millennium Drought and the subsequent global financial crisis, used the sale of water to pay down debt and now find themselves in another crisis with high water prices affecting their profitability and sustainability.

### **High Security Entitlements:**

As entitlements are costly assets which sometimes produce little reward, some growers have sold some of their entitlements when the demand is high in order to release capital for other expenses. When water is scarce, such as in the current climate, growers have found that relying on temporary water without an entitlement is an extremely risky and costly choice. During the Millennium Drought, growers were shocked when they discovered that they would receive so little an allocation that they could not irrigate their farms despite the price they had paid for entitlements. They assumed that 99 per cent of the time, they would have full allocation.

### **Leasing:**

Locking in prices for the next five years assists corporates and growers with their long term budgeting. As the market is subject to the volatility of the weather, forward leasing can be very beneficial, particularly if the market drops for a long period. There is also risk involved however, an example being the current situation where there is no longer enough water in the river system to irrigate permanent plantings during drought. In this case, corporates must pay high prices for temporary water to meet their contractual agreements, and growers benefit by paying the same annual prices regardless.

Leasing has allowed growers to sell property at retirement, and lease water as a form of self-funded superannuation. Whilst this may not have been the intent of the unbundling, it has some benefits. People purchasing property for new ventures may not be able to afford the property and the entitlement, particularly in today's property market where the cost of housing in Australia is so high, that the next generation face great difficulty getting into it. Leasing allows people to buy property, and continue to lease water from the entitlement owners, until they can afford to purchase entitlement themselves. Establishment costs for a citrus property are very high, in the order of \$25,000 to \$35,000 per hectare, with the wait for a harvest and cash flow somewhere between seven and nine years.

### **Carryover:**

Growers make use of the carryover option to save water where possible for drier years, however smaller growers in particular feel somewhat cheated. Although they have paid for an entitlement

to access their allocation, if they don't use all of their water and don't carry it over, the government takes it from them. If their ABA drops near zero, they receive emails from the government advising them that it's a criminal offence for their ABA to reach zero, or go into negative, so they have to buy more water. If they carryover, they get less allocation the following year. If they get rain, their allocation may spill, and then they lose what they have paid for. It is more difficult for smaller growers to manage this, as they don't have the time available to monitor the situation closely, and reserve funds to risk losing if the wrong decision is made.

Carryover assists for a year or so during dry seasons, and is a good tool when the cost of water peaks, however when the allocation is extremely low, no grower has enough carryover to cover themselves adequately.

The only barrier growers see to entering the water market is the price.

Growers felt that carryover should be restricted to those who have a use for the water; growing food or fibre. Speculators should not be able to carry water over into the next season as this does not allow water to be available for irrigated agriculture and only serves to further shorten the market when water is actually available, in other words, not held for the purpose of growing food or fibre.

### *Trade fees*

Growers need to cover their expenses each year, including bank loans. Citrus trees are permanent plantings and require water year round. The price of broker fees, and the price of water does not impact a grower's decision to trade as they have no choice, unless it is to turn off their water permanently and let their orchards die. Citrus trees take approximately five years to start producing, with the wait for a harvest and cash flow somewhere between seven and nine years so this is not an option.

Growers move between brokers until they find someone they are comfortable with, who provides a breakdown on each trade, and explains how their commission works. Sometimes brokerage fees are charged to the seller who is looking to move their water, and the buyer is not required to pay anything.

### *Trading strategies*

In September 2019, Citrus Australia co-signed a letter, along with eleven other national horticulture bodies, to the Hon David Littleproud, Federal Minister for Water, addressing a number of concerning allegations that came to our attention regarding the unconscionable conduct of traders in the water market. This letter is attached as Appendix A.

As outlined in the letter, brokers are not registered, and the proliferation of small exchanges and private trades makes it difficult to identify unconscionable conduct without forensic investigation.

Recently, growers have shared with Citrus Australia a number of encounters they have experienced:

- Traders playing 'hockey' on the market, by selling parcels of water to each other throughout the day at increasing prices, in an attempt to drive the overall price of the market up. In one instance, 80 per cent of trade on the market in one day was by one trader.



- Putting parcels of water on the market in the morning, and then removing them in the afternoon. Growers think a lot of water is moving around and there must be a reason, so purchase water thinking they will miss out if they don't.
- Traders purchasing mass amounts of temporary allocation without an entitlement and using carryover to hold water until there is high demand. When annual allocation is announced, which may be low, brokers approaching growers on their farms and offering to sell water to them off the market. Some brokers have advised growers that their clients are doing this.
- Brokers purchasing water and holding it in their personal account, then selling it at a higher price to the buyer, taking both the profit and the commission without being transparent about this to the buyer or seller.
- Brokers putting through \$0 trades when selling water at a lower price, so as not to negatively influence the market. Only declaring accurate trade when selling for higher than market price, so as to push the overall market up.

In addition to this, growers feel there are some other activities taking place which impact the amount of water available, including:

- People pumping into unregulated dams, due to lack of sufficient metering and monitoring by the NSW Government;
- Being overwhelmed with frequent emotive text messages from brokers, using scaremongering tactics to encourage growers to buy;
- Philanthropists purchasing bulk amounts of water and donating it to the environment;
- The MDBA and other water traders purchasing high security water and selling;
- Additional water flows to the environment.

## ISSUE 5 – COMPETITION AND MARKET OUTCOMES

### *Water market objectives*

The objectives of the water market have been achieved in that growers are able to easily purchase water for use when required, pending availability. If a grower were to receive a low allocation for several years, and there was no market on which to purchase temporary water, they would have no, or limited, solution to their water shortage.

The Victorian Department of Environment, Land, Water and Planning's (DELWP) Water Market Transparency Options Paper describes Victorian water markets as follows:

"Victoria's water markets were established to allow users to move water in connected systems to where it is most needed... Water markets that work effectively mean water users and their communities can share the benefits of water security and respond to changes in climate, reduced water availability, increased demands and fluctuating commodity prices."

Whilst water users can move water between them to make the most efficient and cost effective use of it, growers believe that several unintended consequences have also resulted in the establishment of the water market. These include:

- The attraction of sophisticated investors, and unsophisticated buyers. These investors are not water 'users', and have no connection to the land. They are not participating in the market for the purposes of moving water where it is most needed;
- Users and their communities are not sharing the benefits of water security, for example Citrus Australia knows of growers with high security entitlements who have turned off irrigation in their most profitable season, due to water no longer being available in the Darling River;
- Changes in climate and weather are taking place, for example sudden stratospheric warming currently over Antarctica could deepen Australia's drought, based on previous evidence of extreme dry conditions.<sup>8</sup> There hasn't been any response to this from government in terms of changing access to market;
- There is reduced water availability, however there hasn't been a strong response to this, other than Victoria slowing down applications for water licences.
- The river has been getting pumped dry since water became a commodity. It is over allocated to the environment and growers. Prior to the market, growers had sleeping water licenses that weren't used, therefore water made it to end of river and environment flows took place more naturally.

An article in ABC News in 2011 stated:

"In Australia there are valid concerns that water reform is leaving crucial decisions, with respect to the "where", "when" and "how" of water distribution, in the hands of entities whose priority is profit rather than socially and environmentally responsible water use. Questions are being raised as to why our governments have been prepared to implement these radical policies without seeking and obtaining prior electoral mandate and in the absence of adequate constitutional protection of water.

Australian water is now effectively commoditised: allocated to whoever is willing to pay the going price. The market cares not whether you intend to drip-irrigate vegetables, cultivate cotton by flood irrigation, water golf courses - or merely hold your allocation as an investment for a rainy, or

not so rainy, day. We are told that water trading will promote the allocation of water to “high value” uses, but the concept of “value” is far from precise.”<sup>9</sup>

Growers question the severe lack of foresight by government in the potential of the market when it was developed, and the policy changes they have made since, that have pushed the direction of the market away from its purpose.

### *Entering and exiting the market*

Those consulted see the benefit of a competitive water market, and how this can be successful for both current and retired growers who may still own entitlements. Where the price remains fair and fluctuates in natural rhythms with supply and demand, without the volatility caused by non-users. There is no healthy competition in a market where non-users who trade purely for profit, drain the bank accounts and livelihoods of Australian farmers.

Some suggestions from growers to combat inefficiencies in the market include:

- During drought conditions, traders should only be able to trade to those with an Annual Usage Limit (AUL) or another appropriate delineation, in an effort to ensure that there is enough water for agriculture.
- Traders without an AUL should not be able to carryover between seasons, to prevent hoarding water in an effort to raise prices. Carryover should be a product reserved for those with agricultural businesses, for financial and risk management.
- Parcels of water should be tracked in the temporary market and tagged, so that they can only be traded once per year. If purchased by farmers, they should then be used on the farm, rather than traded again.

Whilst industries have adjusted over time to market conditions, by budgeting for higher water costs, managing risk with carryover, investing in more sustainable and efficient irrigation methods and so on, the adjustment hasn't been to the benefit of growers overall, as it is still cost prohibitive.

Whilst growers can make changes to business plans, and reduce costs or provisions in most areas of business, reducing water is not possible. It saddens citrus growers to watch the demise of the dairy industry, the increase of competitiveness between growers of food commodities, and they feel the stress of wondering if they are next.

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## APPENDIX A

### Almond Board of Australia

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5 September 2019

Hon. David Littleproud  
Minister for Water Resources, Drought, Rural Finance, Natural Disaster and Emergency Management  
PO Box 6022  
House of Representatives, Parliament House  
Canberra ACT 2600

#### Murray Darling Basin and Water Trading

Dear Minister,

This letter is written on behalf of the following industries: Almonds; Citrus, Olives, Table Grapes, Wine Grapes, Dried Grapes, Pistachio, Walnuts, Summerfruit, Hazelnuts, Chestnuts, and Grape & Wine.

Our industries draw your attention to the ongoing unconscionable conduct by some water traders and brokers that is undermining the integrity of the southern Murray-Darling Basin water market. It is pushing water prices beyond what they would be in a fair market.

We are advised that investors with no links to land are working with complicit brokers to manipulate allocation prices. The general the strategy is:

- Early in the season, when allocation levels and trade volumes are low, investors will purchase a large proportion of the available water, effectively clearing lower priced water and forcing up the average market price. A single investor has made up 80% of the trade on a given day.
- This trade seems deliberately timed to coincide with public announcements that may move the market (e.g. water allocation announcements), thus amplifying the impact of the resulting price signals.
- During this period, water investors do not release their own allocation to the market. The combined buying of significant volume and withholding of supply forces the market upwards.
- Large irrigators tell us that they are being approached by water brokers in person, offering large volumes of water at the recently increased market price. These large volume parcels do not appear on that broker's trading platform.
- This deliberate manipulation of the market creates both a false impression of demand and limits the available supply.

This behaviour would not be tolerated on the Australian Stock Exchange. With financial trades this behaviour would be illegal, and brokers and investors alike would be prosecuted. However, because the water market is relatively lightly regulated, opaque, and corporation, consumer and competition laws are not being enforced such behaviour is apparent. Brokers are not registered, and the proliferation of small exchanges (46 at last count) and private trades makes it difficult to identify unconscionable conduct without forensic investigation.

Investors and brokers make returns not from utilising water for agricultural purposes, but purely from trade. Conduct that forces prices up undermines the market's ability to support a viable and diverse irrigated agricultural sector. When trading practices result in forcing up the market value, large investors are maximising returns at the expense of agricultural water users. This amplifies existing cost challenges that reduced allocations already bring and has a detrimental socioeconomic impact in regional communities underpinned by these farming businesses.

The ACCC inquiry will investigate whether the water market rules in the Water Act 2007 and the 2012 Murray-Darling Basin Plan are working as intended. However, the inquiry will take 18 months, and it will be longer before any recommendations are enacted. We cannot wait that long – the time for action is now.

The use of existing legislation, and the powers already vested in regulatory bodies such as the ACCC and the Australian Securities and Investment Commission (ASIC), are required to resolve current water market issues.

We urge you to consider the following:

- Initiate an immediate ASIC and/or ACCC investigation into whether current trading practice is consistent with corporations, consumer and competition law.
- All water brokers to be licensed and regulated by the 2020-21 season.
- Brokers be prohibited from holding and trading water on their own accounts.
- Creation of a single MDB water exchange ready for the 2020-21 season.
- Enforce mandatory price reporting.
- Justification for \$0 trades be made mandatory on all trade registrations
- A temporary moratorium on non-water users buying allocation and carrying over water.

The lack of market transparency masks unconscionable conduct. Non-irrigator entitlement holders appear to have a small share of the overall entitlement and allocation market, but some hold a high proportion of the allocation water available for trade, often purchased in addition to allocations against the entitlements they own. The reason an investor without an agricultural use for water would purchase allocation is to make profit from the trade, or to influence the market. This activity creates and maintains upward price pressure in the market at the expense of irrigated agricultural businesses.

The unchecked behaviour of some financial investors will only get worse as the current water season progresses. Rural and regional farming communities across the Murray Darling Basin are already being hit hard by the drought and cannot tolerate being taken advantage of like this.

As a diverse group of agricultural industry bodies we speak on behalf of our farming members requesting that immediate action be taken on this issue to create a fair water market operating in the best interests of the environment; agriculture; and Basin communities as intended in the Murray Darling Basin Plan. We do not expect regulators and decision-makers to accept reassurances from brokers and others with vested interests in maintaining the status quo, that all is in order and there is nothing to see.

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

Yours sincerely,



Neale Bennett

Chair - Almond Board of Australia on behalf of the following industry bodies:

