



Submission ACCC Water Markets in the Murray Darling Basin

November 2019

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Who we are?

Australian Grape and Wine Incorporated (Australian Grape & Wine) is Australia's national association of winegrape and wine producers. Our activities focus on providing leadership, strategy, advocacy and support that serves Australian wine businesses now and into the future.

We represent the interests of the more than 2,500 winemakers and 5,000 winegrape growers working in Australia. Our role is to help forge a political, social and regulatory environment that enables profitable and sustainable Australian wine businesses. These businesses make a significant contribution to growing regional economies by driving growth in jobs, regional exports and food and wine tourism.

Australian Grape & Wine's voluntary membership represents over 75% of the national winegrape crush. We represent small, medium and large winemakers and winegrape growers from across the country. Policy decisions by the Australian Grape & Wine Board require 80% support, ensuring no single category can dominate the decision-making process and guaranteeing policy is only determined if it provides significant industry benefit. In practice, most decisions are determined by consensus.

Australian Grape & Wine is recognised as a representative organisation for winegrape and wine producers under the *Wine Australia Act 2013* and is incorporated under the *SA Associations Incorporation Act 1985*. We work in partnership with the Australian Government to develop and implement policy that is in the best interests of winemakers and winegrape growers across Australia.

A significant majority of Australia's grape and wine producers rely on the health of the River Murray to ensure sustainable water supply for irrigation. Grape production contributed an estimated 11 per cent of the total gross value of irrigated agricultural production in the Basin in 2014–15.¹ As well as the major wine regions along the river in NSW, Victoria and South Australia, other regional grape growing communities use water from the Murray Darling Basin through pipelined supply. The Murray Darling Basin accounts for about 80% of irrigated grape production in Australia with about 60% of grapevine area being in the basin itself.² These warm inland regions use between 0.5 and 0.1 ML per tonne of fruit grown.

The winegrape growing sector is predominantly located within rural and regional areas. The viability of the sector is therefore intrinsically linked with the prosperity of rural and regional communities. Any major impact to the viability of winegrape growers will have widespread ramifications in these regional economies. With southern allocation prices having peaked at their highest level since the millennium drought and average prices in 18-19 at their highest level on record, the impact of water pricing on winegrape production and availability of supply is likely to be substantial.

As a result of concerns regarding transparency of the water market, Australian Grape and Wine collaborated with representatives from the Almond, Olive, Citrus, Table Grape, Pistachio, Walnut, Summerfruits, Hazelnut and Chestnut industries to write to the Commonwealth and State water ministers on the 11th of November requesting immediate intervention to limit the additional hardship being imposed on irrigators by speculative water trade. We welcome the recent announcement by the Government directing the ACCC to conduct this inquiry into markets for tradeable water rights and we look forward to an outcome enhance transparency, regulation, competitiveness and efficiency.

¹ <https://www.agriculture.gov.au/abares/research-topics/surveys/irrigation/grapes>

² <http://www.agriculture.gov.au/abares/research-topics/surveys/irrigation/grapes>

Issue 1 – Market trends and drivers

The wine sector is predominantly based in rural and regional areas. It is a significant employer and contributor to these economies. The hardship imposed by the current water market will not only mean that affected industries such as winegrape growers and producers will suffer, but there will be flow on to rural and regional economies. Australian Grape & Wine believes that it is vital that the water markets are operating as intended, and that there is no scope for market manipulation that might increase an already challenging price of water.

Water policy in Australia should provide irrigators with flexibility as to how they manage their irrigation requirements, catering for differing appetites for risk as well as the contrasting needs of perennial and annual crops in terms of water security. Despite winegrapes having a high reliance on water, year in year out, a number of grape and wine producers elected to sell their permanent entitlement. ABS figures from 2015, suggest that around 5% of grape growers elected to sell part or all of their permanent water access entitlements *each year* between 07-08 and 14-15.³ Various reasons have been cited for this, such as to improve cash flow for other investments or for retiring or reducing debt. In many cases this debt reduction has come with significant pressure from banks to take up this opportunity. In other cases, proceeds from sales of water entitlements have funded vineyard expansion or irrigation efficiency measures. Purchases of seasonal allocations in that same period then amounted to around 8% of total cash costs but during the millennium drought cost of water purchases were significantly higher amounting to a significant 21% of total costs.⁴ Prices for temporary water allocations during that drought ranged between \$495 and \$702 per ML in the major trading areas.⁵

Recent seasons have seen an increase in value for winegrapes. However, in spite of this, with water allocations trading at levels comparable millennium drought, a typical winegrape producer reliant on allocation trade in the inland regions will be unlikely to turn a profit at current allocation prices. White grapes typically require more water, because they yield higher but command a lower price per tonne. The entire production of white grapes in warm inland regions is particularly vulnerable. At \$1000/ML the ability of winegrape growers reliant on temporary trade to grow *any* winegrapes profitably in warm inland regions becomes highly unlikely. For those owning permanent entitlements, the opportunity cost of irrigating grapes may also be a consideration when making ongoing production decisions.

Winegrapes have a requirement for water not just to produce a crop but in most Australian environments, to stay alive. If vines were left to die due to lack of water, replacement would involve pulling out vines, purchasing new planting material, significant labour and a total costing of up to \$60 000 per hectare.⁶ This would be followed by a further cost of 1-4 years of limited or no production. Winegrape growers' living balance sheet along with other fixed costs, presents a significant barrier to exit in any given season. Growers reluctant to risk the loss of a significant asset will often chose to irrigate despite lack of profitability – if they can afford to.

Water use efficiency has been of high priority to Australian winegrape growers and the industry has worked hard to improve its practices. ABS reports that most winegrapes are now irrigated with efficient drip or micro spray and

³ http://data.daff.gov.au/data/warehouse/9aas/2015/WineGrapeFarmsMDB/WineGrapefarmsMDB_v1.0.0.pdf at p16

⁴ http://data.daff.gov.au/data/warehouse/9aas/2015/WineGrapeFarmsMDB/WineGrapefarmsMDB_v1.0.0.pdf at p16

⁵ Averaged purchase values over the 07-08 season <http://www.clw.csiro.au/publications/waterforahealthycountry/2011/wfhc-water-trading-pricing-mdb.pdf>

⁶ Vinehealth Australia (2017) estimated cost of replanting a vineyard with vines grafted onto rootstocks – including pulling out vines, purchasing the new grafted material, upgrading block infrastructure. sourced from <https://vinehealth.com.au/wp-content/uploads/2018/01/Wine-Viticulture-Journal-Rootstock-resistance-March-April-2018.pdf>

that flood irrigation had been all but phased out by mid 2000s.⁷ Australia's winegrape growers continue to strive for improvements in water use efficiency, and our innovative environmental sustainability program *Sustainable Winegrowing Australia*⁸ supports the industry in monitoring its achievements. Investment in research and development aimed at reducing irrigation without limiting yield has led to irrigation efficiency strategies such as Regulated Deficit Irrigation, Partial Rootzone Drying and Sub-surface Drip Irrigation. At a certain point, further limitation of water will lead to vine stress that will not only impact on yield and quality but can have a negative effect on subsequent seasons' crops. In recent times, research into how grapevines respond to dry conditions and increasing temperatures has highlighted benefits in applying water earlier in the season and in applying additional water to manage heat events and/or build-up of salinity. Apart from irrigation efficiency there are options for growers to reduce their water use such as rootstock selection for drought tolerance, strategies that focus on high tonnage or high value per ML or looking to different varieties. But adaption in the wine sector involves considerable expense and is often a slow transition.

Water supply and irrigator engagement with the water market has changed since the last period of significant shortfall in the millennium drought. There are some positive factors, such as a more mature water market, a greater selection of water products and a sector that is now more familiar with the concept of buying and selling water. There are, however, some significant challenges that have arisen since then, including the removal of a significant volume of water to the Commonwealth Environmental Water Holder, thus reducing the amount of water available to irrigators. There has also been an increase in the area planted to permanent crops, in particular, perennial tree crops, and a greater total amount of irrigator demand reliant on the allocation market. A significant structural change in the transfer of water demand across the basin from annual crops to permanent crops such as almonds and citrus that require water every year has changed the dynamics of the demand for water. We believe that demand for water is likely to continue to grow as agribusiness investments continue to capitalise on high prices for these crops and as new plantings mature over the next few years.

Today's situation of increasing demand from both irrigation and for recovery of water for the environment coincides with significantly low inflows and low storage. Consulting firm Aither estimates that during extreme dry periods the amount of available water will be sufficient to irrigate our permanent crops only,⁹ but other users will also be holding or competing for the same water. Such lack of security of supply of water for irrigation during periods of reduced inflow and restricted allocation is a problem that will likely recur under Australian conditions.

The upward forces on water pricing coincide with a growing level of concern about low levels of transparency in the water market. Inconsistency between states, a high degree of complexity, as well as perception that investment by non-irrigators is affecting the market has fuelled these concerns. This is compounded by a risk that delivery infrastructure is incapable of guaranteeing supply of water in the Southern basin during periods of peak demand, in particular beyond points of flow constraint such as the Barmah Choke.

Like other agricultural sectors with permanent irrigated orchards, the wine sector needs reliable and affordable water supplies to underpin a large amount of its production. A failure to irrigate goes beyond the loss of income in a given season to risk of ongoing yield reduction, damage or permanent loss of vineyards.

⁷ <http://www.clw.csiro.au/publications/waterforahealthycountry/2011/wfhc-water-trading-pricing-mdb.pdf>

⁸ https://www.awri.com.au/industry_support/sustainable-winegrowing-australia/

⁹ <https://www.aither.com.au/2018-water-markets-report/>

The risk is not confined to vineyards. Australian winemakers now export a total value of \$2.98 billion per year and Australia has recently overtaken France as the highest value wine exporter to China.¹⁰ Many celebrated and highly successful Australian brands have been built over the years contributing to significant growth in exports throughout the latter part of the last century. Established brands rely on supply of grapes that can be highly differentiated compared to other commodities and often rely on winegrape supply of a certain style, from a specific grape variety or a specific region. With approximately 80% of exports being packaged wine,¹¹ it's clear that any sudden or prolonged increase in water pricing is likely to lead to a significant reduction in winegrape yields that would have the potential to eliminate our ability to supply these markets with many well-known Australian wine brands. A recent report by Ciatti wine brokers stated that despite the global harvest declines of 2018, buyers are not tolerating price increases in the majority of wine categories. The global shortage in winegrapes is not flowing through to better prices.¹² Supply interruptions will impose the severe consequences of loss of markets to overseas competitors and erosion of brands built over many years. This will have a flow on effect for efficiency of throughput of the large wine processing facilities and will increase the effective cost of production per litre beyond the impact of the cost of water. With a reduced economy of scale large winemakers will be less competitive, and if too pronounced, may render a large processing facility unviable in the long term.

Issue 2 – Market transparency and information

There is little doubt that the unbundling of water from land titles has contributed to a major change in the access to this water since the millennium drought. We can acknowledge the many benefits in increasing the flexibility for irrigators and that this policy has allowed development of different water supply options, such as forward leases, parking of carry-over and intervalley transfers. However, the feedback from winegrowers indicates a level of cynicism and lack of trust about the level of transparency in water markets and concern about potential influence from brokers and water investors that may be adding to the impact of short supply and high demand. For example, many growers have expressed frustration, that they feel that they are bidding for allocation water against speculative investors, who do not have vineyards or orchards to irrigate.

Australian Grape & Wine is aware that there is a large range across winegrape growers' ability and capacity to engage with the water market which leads to problems associated with information asymmetry. Some vineyard owners and operators are large wine companies, or corporate style winegrowing entities with dedicated technical staff with the capacity and resources to engage with the water markets on a continuous basis. Other growers are small family or sole – trader entities, and engagement with the complex rules and regulations that are associated with the water markets is daunting for them. One table grape grower attending the ACCC meeting in Mildura on the 7th of November said that he had employed a person specifically for the purpose of purchasing water. Other growers feel that they have to place their trust in water brokers as a result of the complexities in the market.

There is also a difference in the level of awareness and access to information that water investors have compared to irrigators. While it must be acknowledged that the water investors have a duty to their shareholders to invest in water intelligence to provide the best possible return, the fact that different participants in the market have different levels of intelligence in their information has the potential to put irrigators at a distinct disadvantage in terms of accessing water at the lowest possible cost.

¹⁰ Global Trade Atlas. Import Volume Total Wine data to August 2019

¹¹ <https://www.wineaustralia.com/news/market-bulletin/issue-140>

¹² <https://www.ciatti.com/wp-content/uploads/2019/11/Global-Market-Report-November-2019-1.pdf>

We understand that in addition to the complexity and disparate location of water market information, there are also a number of water trades that do not take place on water exchanges, and so may not be listed. Such deals can be of large volumes and made directly between a broker and an irrigator. We have heard that some forward allocation deals occur this way. This suggests that despite best endeavours very few irrigators would be privy to knowing with a high degree of accuracy the true balance of water being bought and sold in the market. Such a situation would not be accepted with share trading on the ASX.

Other issues surround the interpretation of information. For example, reports by Aither suggest that recent new permanent horticulture developments will drive a demand for water well in excess of what is being reported via the ABS.¹³ While their conclusion may be based on additional evidence compared to the ABS, (such as industry publications, irrigation corporation data and media coverage), consumptive projections based on ABS data alone may be misleading. This discrepancy between two trusted information sources highlights the considerable level of complexity involved in interpreting information relating to the market.

Finally, a number of South Australian irrigators suggested to us that the announcements have been extremely conservative at the start of the season and led to some angst among those unfamiliar with the reasons for the subsequent increase. This concern appears to have reduced as the season has progressed, and at the time of writing South Australian growers have full allocation, which has also alleviated some concerns among the growers now having sufficient entitlement. The timing and frequency of allocation announcements should remain a priority. The fact that all state and valley allocation announcements are made at the same time appears to be well accepted.

Issue 3 – Regulation and institutional settings

The rules that govern intervalley trades (IVT) and movement of water between users across the Southern Murray Darling Basin are not widely understood, and this restriction limits the flexibility of the water market. While many of these restrictions are unavoidable due to the nature of river management and flows, some growers complain about lack of predictability, and the possibility that rules may change with little or no warning. Such an instance occurred this year with the change to the IVT trades from the Goulburn system. Some irrigators had made plans around tagged trade of water from the Goulburn to other systems, but this was rendered impossible by the announcement from the Minister for Water in the Victorian Government on the 20th August, 2019 that IVT from the Goulburn would not be allowed. This change may have been desirable from an environmental viewpoint, but it caught many irrigators unaware, and had an immediate and disruptive impact on the market for allocations.

The major concern in regard to IVT restrictions is the restriction of trade downstream from the Barmah Choke. As the Choke is continually compromised from siltation there appears to be little option but to restrict flows, and the trade transfers are a result of this. There is a major concern for grape growers located downstream of the Barmah Choke on the Murray system, as a significant amount of development of permanent horticulture, predominantly perennial orchards, has taken place over recent years downstream of the Barmah Choke. Irrigators downstream of the Choke are concerned that supply constraints will create significant supply demand imbalances upstream versus downstream effectively creating two separate markets. Addressing this through engineering solutions would remove impediments to free trade, supporting the underlying principles of an effective cap and trade market. Some industry sector representative associations have suggested better utilisation of the Mulwala Channel as an example. It is difficult to see a way back from the commitment that orchard developments and the increasing demand on

¹³ Aither (2019) Water supply and demand in the southern Murray-Darling Basin An assessment of future water availability and permanent horticulture irrigation water demand. A final report prepared for DELWP June 2019

the restricted water availability downstream of the Choke. The current shortfall of available water will be even more critical, potentially dire when the current orchard developments reach peak demand in coming seasons.

Almonds often use significantly more water per hectare than vines, in some cases double the amount. Notwithstanding the principle that water should go to the highest value user, there is a concern from winegrape producers, that agriculture is cyclical and the current high prices for nut crops including almonds makes them more competitive for the available water at this particular point in time. Furthermore, extensive areas of development of perennial orchards has made the IVT restriction around the Choke more critical during periods of low allocation and water scarcity.

Issue 4 – Market participant practices and behaviours

As lack of supply drives significant growth in values of entitlement water, there will be the temptation that a vineyard acquisition may be made independently of an entitlement acquisition. This might mean that a water investment fund can acquire an entitlement that may be owned with a vineyard and lease the water back to the new owner as an operating rather than capital cost. There is an associated risk that corporate concentration of entitlements ownership will occur in much the same way that has happened in many fisheries without mechanisms in place to prevent concentration of ownership of quota-units. In the case of the wine sector, as vineyards change ownership independently of the water entitlement, there could also be an increasing proportion of the irrigated winegrape production reliant on the temporary water market, driving further market volatility and risk for producers during future periods of low water supply.

The most immediate concerns is the unintended consequences of water ownership concentration, potential market distortion and the combined impact on water affordability. Australian Grape & Wine have already heard concerns expressed by many irrigating grape growers about the perceived role of water investors in the market and the lack of transparency that has been widely reported in national and agricultural media.

Winegrape growers are asking questions about whether investors in water that do not own land, and therefore have no need to irrigate with the water they purchase should be subject to the same trading conditions as growers who do. In particular the ability to carry-over water was brought about to provide irrigators the ability to manage water supplies across successive irrigation seasons. In a dry year, speculative water investors might retain carry-over provisions that could otherwise be used or sold onto the market to effectively "short" the market. This has potentially added to the impact of constrained supply and strengthened prices at the end of the irrigation season at a time when many irrigators must buy water to reconcile their accounts Allocation represents "available" water, and the removal of available water for purposes other than irrigation is not consistent with the intent of the market and creates a market distortion, adding to the already significant cost of irrigating during a drought.

We acknowledge that trying to change the unbundling of water rights is like unscrambling an egg. However, if the current high values of the market are being exacerbated by speculative traders pursuing a profit via arbitrage, it is effectively transferring potential income from an irrigator into a water fund to the detriment of regional communities. This is an alarming thought.

Issue 5 – Competition and market outcomes

The MDB water market is a cap and trade market. Other cap and trade markets such as emissions trading have attracted concerns about the possible influence of market speculators. The water market is no different. Much of the recent development in perennial crops is reliant on temporary water, dramatically increasing competition in times of low allocation. In a thin market there will be times, where the market will be very volatile in response to sudden buying needs or fears driven by low allocation announcements. Purchases that involve a significant market share can have a strong influence on prices and can set the scene for water prices for the remainder of the season.

Personal conversations with winegrape growers suggest a low level of confidence in the way that the water market is operating. The main causes of discontent are:

- Unease caused by unprecedeted prices;
- The fact that many winegrape growers reliant on temporary water will be unprofitable in the current season;
- Uncertainty regarding how to interpret information and read the market;
- The complexity of the market and associated trading rules;
- A lack of transparency surrounding trades;
- Strong suspicion of market manipulation fuelled by water market behaviour that seem irrational at times;¹⁴
- Low level of trust in water brokers;
- Concern about consistency of water policy between Jurisdictions.

The current high values in the water market are being felt in different ways. The ability of crops to remain profitable during periods of drought and price volatility depends on the water use requirement of the crop in question, the cost of production, the yield achieved and the prevailing commodity price. Winegrapes in the irrigated regions have recently enjoyed an increase in value, but even allowing for this improvement in return the water prices at the time of writing mean that very few winegrape growers in the sMDB will return profits under current conditions. Other crops, such as nut and some citrus and table grape producers are enjoying higher returns and are therefore more competitive ...at the moment.

¹⁴ For example, an increase in prices on some allocations on the temporary water market followed an increase in water allocation in South Australia in August 2019.

Summary

Winegrape growers, like other growers of perennial crops have no choice but to irrigate as they otherwise risk losing their asset. Many winegrape growers cannot irrigate through permanent entitlements alone and need to buy temporary water. This may be due to them selling entitlement in the past to pay off debt or due to low allocations in a year of low supply.

While it is acknowledged that major impacts on the water price are the result of low supply and increasing demand in recent seasons, there are concerns about the added impact of speculative investor at a time that this is the last thing we need. The extent of this influence is not accurately known but the fact that it is having an impact is without a doubt. This added impact may be enough to push the water price past the "tipping point", so that irrigated winegrape production is no longer viable.

Some immediate action by the ACCC to improve market transparency would be supported. Suggested actions include:

- Address information asymmetries by exploring options for reducing complexity and more accurate and timely release of data relating to the prices being paid for tradeable water products;
- Review impact of policy that allows for the trade of carry-over water from one season to the next;
- Actively seek to reduce disparity in trading rules between state jurisdictions;
- Look for opportunities to move towards a single exchange for water sales that mandates that all water trades must be recorded;
- Registration and regulation of water brokers;
- Prevent water brokers from trading on their own accounts;
- Establish a requirement for a declaration once one party owns a significant volume of the entitlement within a trading region, in a manner similar to holders of significant share volumes on the ASX.

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