



Submission

Issues Paper  
Multi-Jurisdictional Management and  
Execution of the Murray Darling Basin Plan

January 2020

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## Executive Summary

Australian Grape and Wine Incorporated (Australian Grape & Wine) welcomes the opportunity to submit feedback to the Issues Paper on the multi-jurisdictional management and execution of the Murray Darling Basin Plan. The submission will demonstrate the importance of water policy decisions to the viability of the wine sector, focusing on issues most likely to impact winegrape growers and supporting the sector’s policy positions on the management of water resources in Australia.

Australian Grape & Wine supports the following policy principles:

- A fair and open water trading market;
- That where feasible, water trading rules and processes allow for the open trade of water entitlements and allocations based on demand regardless of state and other jurisdictional boundaries;
- Opposition to action by other users, which impact negatively on the wine sector or the environment in regard to availability and quality of water;
- Optimisation of water use within the sector, in particular, through implementation of best practices based on relevant research;
- An enhanced wine industry understanding of water use efficiency and the impact on the environment and vine sustainability;
- Improvements to water management and, where changes to the way that water is managed are proposed, that government or relevant authorities give appropriate consideration to the economic, environmental and social impacts at the regional level, and
- Recognition and support of the wine industry for its water use efficacy and management.



## 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 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. Australian Grape & Wine is recognised as the representative organisation for winegrape and wine producers under the *Wine Australia Act 2013* and is incorporated under the *SA Associations Incorporation Act 1985*.

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.

Wine businesses across Australia make a significant contribution to growing regional economies by driving growth in jobs, regional exports and food and wine tourism. There are estimated to be 2468 wineries and 6251 grape growers across 65 winegrowing regions in Australia, contributing over \$45 billion gross output annually to the Australian economy.<sup>1</sup> Wine regions are considered intensive in their use of labour in both vineyards and wineries - in almost all of these regions the industry's share of regional employment is more than twice the national average, and for nearly half of them it is more than ten times.<sup>2</sup> The sector directly employs 68,395 and indirectly supports a total of 172,736 full and part-time employees.

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.<sup>3</sup> 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.<sup>4</sup> These warm inland regions use between 0.5 and 0.1 ML per tonne of fruit grown.

Any major impact to the viability of winegrape growers will have widespread ramifications in these regional economies. The impact of significant increases in water pricing on winegrape production and supply is likely to be substantial. 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 both short and long term flow on effects to rural and regional economies.

Winegrapes have a requirement for water not just to produce a crop but in most Australian environments, to stay alive. If vines are left to die due to lack of water, replacement will involve pulling out vines, purchasing new planting material, significant labour and a total costing of up to \$60 000 per hectare.<sup>5</sup> 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.

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

<sup>1</sup> <https://www.wineaustralia.com/report-downloads/e2ad0473-60d8-4486-a7e4-b07321231335>

<sup>2</sup> [https://www.adelaide.edu.au/wine-econ/papers/0110\\_Aust\\_wine\\_regions\\_0210.pdf](https://www.adelaide.edu.au/wine-econ/papers/0110_Aust_wine_regions_0210.pdf)

<sup>3</sup> <https://www.agriculture.gov.au/abares/research-topics/surveys/irrigation/grapes>

<sup>4</sup> <http://www.agriculture.gov.au/abares/research-topics/surveys/irrigation/grapes>

<sup>5</sup> 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.<sup>6</sup> Australia's winegrape growers continue to strive for improvements in water use efficiency, and our innovative environmental sustainability program Sustainable Winegrowing Australia<sup>7</sup> 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 also have a negative effect on subsequent season crops. If they can afford to, growers reluctant to risk the loss or damage to a significant asset will may choose to irrigate despite lack of profitability.

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. 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.

## The impact of water policy on the wine sector

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 proportion of irrigators 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. It is likely that the demand for water will 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.

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.<sup>8</sup> 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.<sup>9</sup> Prices for temporary water allocations during that drought ranged between \$495 and \$702 per ML in the major trading areas.<sup>10</sup> Water consulting firm, Aither estimates that during extreme dry

<sup>6</sup> <http://www.clw.csiro.au/publications/waterforahealthycountry/2011/wfhc-water-trading-pricing-mdb.pdf>

<sup>7</sup> [https://www.awri.com.au/industry\\_support/sustainable-winegrowing-australia/](https://www.awri.com.au/industry_support/sustainable-winegrowing-australia/)

<sup>8</sup> [http://data.daff.gov.au/data/warehouse/9aas/2015/WineGrapeFarmsMDB/WineGrapefarmsMDB\\_v1.0.0.pdf](http://data.daff.gov.au/data/warehouse/9aas/2015/WineGrapeFarmsMDB/WineGrapefarmsMDB_v1.0.0.pdf) at p16

<sup>9</sup> [http://data.daff.gov.au/data/warehouse/9aas/2015/WineGrapeFarmsMDB/WineGrapefarmsMDB\\_v1.0.0.pdf](http://data.daff.gov.au/data/warehouse/9aas/2015/WineGrapeFarmsMDB/WineGrapefarmsMDB_v1.0.0.pdf) at p16

<sup>10</sup> Averaged purchase values over the 07-08 season <http://www.clw.csiro.au/publications/waterforahealthycountry/2011/wfhc-water-trading-pricing-mdb.pdf>

periods the amount of available water will be sufficient to irrigate our permanent crops only.<sup>11</sup> 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.

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 due to physiological factors and growers seeking higher yields to compensate for a lower average 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.

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. The risk is not confined to vineyards. Australian winemakers now export a total value of \$2.91 billion per year and Australia has recently overtaken France as the highest value wine exporter to China.<sup>12</sup> 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,<sup>13</sup> it is 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. Supply interruptions will impose the severe consequences of loss of markets to overseas competitors and erosion of brands built over many years.

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.

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<sup>11</sup> <https://www.aither.com.au/2018-water-markets-report/>

<sup>12</sup> Global Trade Atlas. Import Volume Total Wine data to August 2019

<sup>13</sup> <https://www.wineaustralia.com/news/market-bulletin/issue-140>

## Adequacy of information

- What additional information or data would assist stakeholders in better understanding and meeting their obligations under the Plan?
- Is there sufficient transparency around Sustainable Diversion Limit Adjustment Mechanism projects and water recovery?
- Are there opportunities to better coordinate and consolidate information about the Plan and its implementation? How might this be achieved?
- How can accuracy, efficiency, and transparency of water trading be improved? What are the potential merits and drawbacks of introducing a single Basin-wide water trading platform and Water Register?
- How useful is publicly available information in demonstrating how the Plan is being implemented and monitored, including communications that illustrate if elements of the Plan are not meeting objectives? How might this information be improved?

Australian Grape & Wine supports investment in better monitoring of river flows and inflows and provision of this information to stakeholders.

In response to the South Australian Murray-Darling Basin Royal Commission, the MBDA acknowledged that completing all supply measure projects by 2024 will be challenging due to the level of complexity, risks and policy matters to be worked through. The MDBA claims that projects are regularly assessed and reported on with measures to ensure environmental outcomes are achieved, as the projects progress.<sup>14</sup> However, the issues paper SDLAM assessment framework raises concerns that there is no reliable way of knowing how much water has been returned to the environment. These concerns must be addressed. Australian Grape & Wine believes that the SDLAM projects are a critical component of the Basin Plan and commitment to these will contribute towards greater economic and social security of regions. Irrigators require greater degree of certainty that this water will remain available for consumption in preference to recovering 605 GL from water entitlements.

Understanding of water management and policy arrangements in the Murray Darling Basin has been found to be low, which can be explained by the fact that water management in the basin is complex and information sources often contain disparate information. Inconsistency between states, a high degree of complexity, as well concerns regarding market manipulation contribute to the challenge. 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.

Australian Grape & Wine is aware that there is a large range across winegrape growers' ability and capacity to engage with the water market and potentially a difference in the level of awareness and access to information that water investors have compared to irrigators. Feedback from winegrowers indicates a level of cynicism and lack of trust in water markets and concern about potential influence from brokers and water investors that may be adding to the impact of short supply by holding onto much needed water in anticipation of future price rises. 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. This was highlighted in our submission to the ACCC enquiry into the water market. In addition to the complexity and disparate location of water market information, anecdotal evidence suggests that there are also a number and potentially significant volume of water trades that do not take place on water exchanges, and so may not be listed. 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.

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<sup>14</sup> <https://www.mdba.gov.au/basin-plan-roll-out/sustainable-diversion-limits/sustainable-diversion-limit-adjustment-mechanism-1>

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.<sup>15</sup> 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.

Australian Grape & Wine supports any measure that would improve transparency in the water trading market. Greater co-operation between States and the development of either a centralised or common reporting platform for trades so that information can be available in real-time would address existing concerns regarding complexity and inconsistency of information available to irrigators.

Providing greater powers to BoM to compel agencies to collect particular data or specify the level of data quality would assist irrigators to better understanding state of the water resource.

### Complexity of current Basin Plan governance arrangements

- What are the benefits or limitations of the current management and governance arrangements of the Basin Plan?
- Is there sufficient transparency in the management and governance arrangements of the Basin Plan, particularly in the division of roles and responsibilities between Commonwealth and Basin states and their various agencies?
- Do jurisdictional differences create unnecessary complexity and inconsistency, or increase potential for compliance breaches? To the extent such complexity is unavoidable, given the history and inter-jurisdictional nature of Basin management, how can this complexity be best managed?
- Should the Commonwealth have greater powers to manage the Murray Darling Basin? What additional powers would help improve the management of the Basin? What would the practical implications of making these changes be?
- What are the benefits or drawbacks of a large number of entitlement types?
- Is there scope to streamline entitlements used across the Basin?

The rules that govern intervalley trades (IVT) and movement of water between users across the Southern Murray Darling Basin are not widely understood. 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. This has meant that IVT restrictions around the Choke are more critical during periods of low allocation and water scarcity. Irrigators downstream of the Choke are concerned that significantly supply constraints will exacerbate 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.

Lack of understanding of the rules that govern intervalley trades (IVT) contributes to difficulty in making well-informed decisions. 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 last 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

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<sup>15</sup> 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

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.

Resolving jurisdictional differences in the timing and frequency of allocation announcements should remain a priority. Irrigators are also seeking to better understand the factors contributing to allocations. Last year, a number of South Australian irrigators suggested 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.

It is important that water policy in Australia provides 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. Furthermore, a need for many different types of entitlement is justified by significant physical differences in the river across the Basin. While, diversity of products is important the fact that there are 150 different classes of entitlement within the Basin seems excessive and could contribute to unnecessary level of complexity that should be streamlined where possible.

## Compliance arrangements

- What improvements, if any, could be made to facilitate robust monitoring and compliance into the future?
- What have the impacts of the compliance processes set through the Compliance Compact been? Have they resulted in better compliance? Are there areas that need further development?
- Do the Commonwealth and the states have adequate powers, resources, and information to monitor and enforce compliance? If not, what is missing?
- Is it challenging for water entitlement holders to find information about, and understand their compliance obligations? Do entitlement holders have confidence that they know the rules so they can act in accordance with their water licenses?
- What are the effects, positive or negative or otherwise, of Basin states having different compliance processes including having different penalties and sanctions for offences, or different metering equipment?
- Is it feasible to develop a uniform sanctions and penalties regime? What are the benefits/challenges of having uniform sanctions and penalties across the Basin?
- Do the existing licensing and regulation frameworks for water brokers provide sufficient protection for traders?

Australian Grape & Wine supports the policy that potential breaches of SDLs are investigated, and that appropriate action is taken if water use by States grows beyond the agreed limits.

The existing compliance arrangements as outlined in the issues paper whereby the MDBA is responsible for taking appropriate action against non-compliance by States are appropriate on the proviso that associated impediments are addressed. Australian Grape & Wine supports the view that reporting obligations of Basin States should be strengthened and any impediments to oversight and monitoring caused by deficiencies in water accounting systems and water tracking technology should be addressed. Australian Grape & Wine would support a move towards greater consistency of regulations, penalties and sanctions between States where possible.

## Contact

For further information, please contact:



**Tony Battaglene**

**Chief Executive**

14-16 Brisbane Avenue  
Barton, ACT 2600

**Tel** +61 2 6239 8304

**Email** [tony@agw.org.au](mailto:tony@agw.org.au)

**Anna Hooper**

**Manager, Industry Policy**

National Wine Centre, Botanic Road,  
Adelaide SA 5000 |

**Tel** +61 8 8133 430

**Mobile:** +61 427 685 077

**Email** [anna@agw.org.au](mailto:anna@agw.org.au)