Winemakers' Federation of Australia

Productivity Commission Submission

Rural Water Use and the Environment: the Role of Market Mechanisms

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Presented By:

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1. Winemakers' Federation of Australia

The Winemakers' Federation of Australia's Mission Statement is "to develop policies and programs to increase the net returns to Australia's Winemakers".

Through direct and affiliate membership, the Winemakers' Federation of Australia represents over 95% of Australian wine industry production and over 90% of Australian wineries.

In December 2000, WFA altered its structure to ensure that all state wine industry associations were represented. In doing so, WFA broadened its consultative process on policy development beyond its 400 direct members, to include all wineries in Australia represented by a state association. The combined representation of direct membership and state membership is estimated at 1,200 wineries nationally.

The states now play an integral role in WFA policy and strengthen the grass-roots link between WFA and wineries across Australia.

2. Overview of water use in grape growing

Between 1995-96 and 2001-02 Australian wine grape production increased by 1 million tonnes to 1.8 million tonnes and the area planted to grapes (both bearing and non-bearing) increased by 86,000 hectares to 167,000 hectares. Recent projections by Stanford (AWBC) are that in 2008 the area planted to grapes will be 203,000 hectares. Whether this target can be achieved will, to a degree, be determined by the availability of water.

During this period of industry growth there has also been an increase in concerns over the health of the nation's waterways. These have most recently been expressed in the 'Blueprint for a National Water Plan' by the Wentworth Group of Concerned Scientists, the 'Living Murray Initiative' of the Murray-Darling Basin Commission (MDBC), the Australian Government 'National Water Initiative' and the 'Green Paper' of the Victorian Department of Sustainability and Environment.

Common to each of these documents is the view that more water is needed to restore and maintain the environmental attributes of many water resources.

Water restrictions and drought along the Murray Darling and in other parts of Australia led to significant reductions in the 2003 vintage. These outcomes have focused industry's attention on what is a major long-term threat, both to our industry and other industries and communities that rely on water from these catchments. For the wine industry, water security and water quality are the critical issues for ongoing sustainability, and for any potential growth aspirations that we may have. The sustainability of our river systems will require a commitment to environmental flows, and it will need a commitment to dismantle arrangements that reward inefficient users ahead of more efficient users - across all industries.

It is in the national interest that our scarce water is accessible to the users that are able to return the highest value to the economy. Likewise, it is in the wine industry's medium and long term interest to ensure that governments convert commitment into actions and take dramatic steps to reverse the parlous state of some of our major water resources.

Whilst winemaking and packaging are important with respect to water use and wastewater production, the irrigation of vineyards accounts for a significantly larger share of water use than winemaking and packaging. Therefore this submission concentrates on the use of water for vineyards.

Across the Australian wine industry there is considerable variation between Australia's main wine producing regions with respect to the quantity of water applied, the source of irrigation water and the method of application. In addition there are specific water issues confronting each of those wine producing regions.

Data from the Australian Bureau of Statistics (2002) indicate that in 1999-2000 grapevines comprised approximately 5 per cent of the total area of crops and pastures irrigated. The data further indicated that grapevines consume approximately 5 per cent of the water extracted for irrigation. ABS (2006) reports that across Australia in 2004-05 the average volume of water used to irrigate grapevines was 3.76 ML/ha. Other data from the National Land and Water Resources Audit indicate that in 1996-97 the water costs comprised approximately 3 per cent of the total input costs for the irrigated production of grapes, and that, in terms of profit at full equity, the irrigated production of grapes provided a return of $600/ML. However, these aggregate data mask the extreme variation between seasons, regions and operators.

TABLE 1: Cost of Water as Share of Total Input Costs (%)

Dairy	14-16
Sugar cane	14-16
Rice	14-16
Grapes	3-4
Cotton	3-4
Fruit	1-2
Vegetables	1-2

Source: National Land and Water Resources Audit, 'Australians and Natural Resource Management 2002'

An indication of variability on water source and method of application is provided by responses to additional questions included in the 2004-05 ABS Vineyard Survey.

For example, the ABS data indicated that in the ACT the major source of supplementary water for irrigation was recycled water, whereas in the Big Rivers region of NSW and the Lower Murray region of South Australia supplementary water for irrigation was mainly sourced from irrigation schemes. In the McLaren Vale region of South Australia and the Greater Perth region of Western Australia supplementary water was mainly gained from groundwater sources.

The ABS data also indicated that in 2001-02 in the Big Rivers region of NSW flood or furrow methods were used to irrigate almost 40 per cent of the land with supplementary water. By comparison in the Hunter Valley region drip or micro spray was used on over 95 per cent of the land. Drip or micro spray was also used to apply supplementary water for about 95 per cent of the land in the Fleurieu region of South Australia.

Comparison of ABS water use data from 2001-02 and 2004-05 shows that over this period there has been an increase in the area irrigated by drip or micro spray application systems. Over the same period there has been a reduction in the area irrigated by both furrow/flood systems and overhead spray systems, particularly in the large warm inland regions which together comprise approximately 60 per cent of Australia's wine grape production.

TABLE 2: Australian Viticulture Water Use: Method of Application [a] 2001-02 (by Area, %)

	Spray	Drip/Micro spray	*Furrow/Flood*	*Other*
Hunter Valley	1	98	-	1
Big Rivers	16	43	39	1
Fleurieu	1	95	2	2
Lower Murray	45	41	5	10
North West Victoria	42	30	26	2
Western Victoria	-	99	-	1
Central WA	3	97	-	-
Australia	19	67	12	2

Source: ABS 'Australian Wine and Grape Industry'
Note: a More than one method may be used, totals may not sum to 100%

TABLE 3: Australian Viticulture Water Use: Method of Application [a] 2004-05 (by Area, %)

	Spray	Drip/Micro spray	*Furrow/Flood*	*Other*
Hunter Valley	4	96	-	-
Big Rivers	29	59	13	-
Fleurieu	5	95	-	-
Lower Murray	12	88	-	-
North West Victoria	59	19	20	2
Western Victoria	-	100	-	-
Central WA	-	100	-	-
Australia	16	76	8	-

Source: ABS 'Australian Wine and Grape Industry'
Note: a More than one method may be used, totals may not sum to 100%

3. Water policy

Recognising both the importance of continued access to water of appropriate quality and the declining quality of many of Australia's water resources, WFA developed the following water policy position statements:

- That water access entitlements be more clearly specified;
- That water access entitlements be perpetual;
- That water access entitlements be separated from land title;
- That constraints on water trade within and between regions and states be minimised;
- That where governments require water for environmental or other purposes they acquire it on the open market and pay fair market rates for it; and
- That before any changes to the way that water is managed are made that appropriate consideration be given to the environmental and social impacts at the regional level.

These position statements were endorsed by the WFA Executive Council in 2005 following a significant period of industry consultation. The underlying sentiments behind these position statements are that many of Australia's water resources (both ground and surface) are stressed and that Australian society should gain the maximum benefit (encompassing social,

environmental and economic considerations) from its water resources.

WFA contends that many of the issues associated with Australia's water resources would be significantly diminished by addressing the following fundamentals associated with water use: ie clearer specification of water access entitlements and removal of many of the existing impediments to trade. Adequately addressing these fundamentals would provide considerable incentives for water users to treat water as a resource and optimise its use, facilitating the transfer of water away from less economic uses to those that provide higher returns resulting in significant national gains.

3.1 Barriers to trade

The following provide significant barriers to trade.

- The considerable variability in the specification of water access entitlements
- Limits on the quantity of water that can be permanently traded out of regions;
- Differences between jurisdictions in the administrative charges applied to water trades; and
- Availability of information on trade.

CSIRO (2005) reported that there are in excess of 400 different specifications of water access entitlements operating across the southern connected Murray-Darling Basin. Greater consistency in the specification of water access entitlements would simplify the task of making conversions between the different types of entitlements and ultimately facilitate greater trade.

Some regions still have restrictions on the volume of water that can be permanently traded out of the region. In addition to restricting trade this also acts as an impediment to structural adjustment, particularly where prices being offered outside of the region are significantly higher than those inside the traded region.

There are considerable differences between jurisdictions in the level of charges applied to water trades. For example, administration charges applied to temporary trades of South Australian water are between 4 and 7.5 times those applied to Victorian and NSW water. For permanent trades the differences are increased by the application of stamp duty at rates of between 1 per cent and 5.5 per cent, depending on the size of the sale. In addition exit fees are now being applied by some regional irrigation providers, further increasing the differences in administrative charges and providing further disincentives to trade.

Another barrier to trade is the lack of information about water trades, particularly the prices at which permanent entitlements are traded. This makes it difficult for valuers to estimate the value of water entitlements and makes it more difficult for financial institutions to use the entitlement as an asset against which irrigators can borrow.

3.2 Barriers to the adoption of water saving technology

As illustrated above there has been substantial uptake of some water saving technology by the Australian wine industry. However, further uptake of technology is limited by the relative costs of installing the technology and the extra profitability that such technology will provide. In some of the cooler climate regions where application rates are less than 1 ML/ha the potential water savings from the installation of further water saving technologies are likely to be small.

In addition there is some scientific uncertainty with respect to the impact of reduced application rates and increases in levels of soil salinity. This particularly relates to the need for leaching fractions in some areas.

Further aspects include the practice by many grapegrowers to use water to influence specific quality attributes of the grapes as they grow grapes according to the specifications required for particular price segments within the wine market.

The current imbalance in the supply and demand for wine grapes is also having an impact on the further adoption of water saving technology. There is anecdotal evidence that the lower prices currently being offered to some grapegrowers is limiting the further uptake of water saving technology. This is working through several avenues including the impact of reduced revenue on the ability to invest in new technology as well as providing an incentive for growers to compensate for lower prices by increasing yields to maintain revenue.

3.3 Other comments

Many grapegrowers will chose to keep extra water entitlement as a form of risk management. For example, extra water is kept to protect against both unexpected hot weather and to offer frost protection. In addition there is a fear that governments might be tempted to unilaterally reduce water entitlements to meet environmental flows targets.