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# **Submission to the ACCC inquiry into water markets in the Murray – Darling Basin**

## **Issues paper**

**November 2019**

**S & L Knight**

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## ***About us***

### ***Making a submission: tell us about yourself***

***When making a submission, it would assist the ACCC if you could provide some background information relevant to your views on water markets, including:***

- ***the reasons for your interest in water markets***
- ***where you are located and where you hold or trade water***
- ***the nature and frequency of your dealings with water markets***
- ***the types of water rights you hold, if any***
- ***any other information that provides context to your observations.***

We are a mixed cropping operation based in the Riverina in New South Wales. We have been involved in irrigated cropping for over a decade.

Lachie holds a Bachelor of Engineering (Mechanical) (Honours) and Bachelor of Commerce from the University of Melbourne. He grew up on an irrigation farm in the Murray Irrigation district before working in the heavy manufacturing and mining industries for 15 years on a fly-in fly-out basis whilst operating an irrigated cropping farm in Finley New South Wales. Lachie's family has been in the Finley / Jerilderie region since 1854.

Simone holds a Bachelor of Laws (Honours) and Bachelor of Business Management from Monash University. She worked for 13 years at a large commercial firm specialising in competition law.

In 2016 we purchased a 2000 acre irrigated cropping farm in Wamboota New South Wales, including 1767 Murray general security water entitlements. We moved our family to the farm and are currently in our third year of operation. In that time, we have received 51%, 0% and 0% water allocations on our water entitlements.

We have limited our submission to what we believe to be the most crucial issue of the ACCC's inquiry – Issue 5 – competition and market outcomes.

However, from our attendance at the public forum we wish to make a general comment regarding carryover arrangements – Issue 1 – market trends and drivers.

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## ***Issue 1 – Market trends and drivers***

### ***How and why you and other market participants use carryover arrangements, including trading and parking of carryover allocations.***

We run a winter cropping operation and the decisions we make in the autumn are highly influenced by our ability to irrigate in the spring. Farming is a risky business. Carryover allows us to make decisions with confidence and to generate the best economic return. Our business strategy is to carryover enough water for spring irrigation, which is approximately 40% of our entitlements.

Suggestions that removing carryover would result in higher allocations are flawed. They assume that irrigators would behave in the same manner without access to carryover as they do with access to carryover which is incorrect. Without access to carryover, irrigators would grow more lower gross margin crops in wet years to use up their water rather than forfeit it. The net result would be higher use of water in wet years, and reduced water availability in dry years. Water prices would plummet in wet years and would skyrocket beyond levels currently seen in dry years.

Carryover is a critical risk management tool and provides a means of somewhat smoothing out the peaks and troughs of the Australian climate. It is our most critical risk management tool and must not be reduced.

## ***Issue 5 – Competition and market outcomes***

### ***Whether water markets are operating efficiently, and where changes to improve efficiency can be made.***

#### **Overview**

Government regulation and examination of the water markets in Australia has failed market participants in many ways. The current market structure fails basic economic theory. The water market in Australia is heavily affected by externalities and is accordingly delivering an inefficient allocation of our most precious resource – water.

#### **Theoretical background**

As the Commission would understand, a private market transaction occurs when a buyer and seller exchange goods or services for money or other goods or services.

Voluntary private market transactions only occur if both the buyer and seller expect to benefit from the transaction. If one party expected to be disadvantaged as a result of the transaction, the transaction would not occur.

As buyers and sellers benefit from voluntary private market transactions, they seek out all transactions as a result of which they could become better off. This results in an efficient allocation of resources, creating an efficient market.

The efficiency of markets is affected by externalities. Externalities occur when a third party uninvolved in a market transaction is affected by it. Externalities can be both positive and negative.

### Application to the water market

When water is sold in the market from a willing upstream seller to a willing downstream buyer a negative externality occurs. The conveyance loss required to deliver that water from its original point of diversion to its new point of diversion is taken out of the pool of water available for productive use and is no longer available for allocation to water entitlement holders. In other words, water that would otherwise have been available to water entitlement holders is no longer available – a negative effect on a third party uninvolved in the transaction.

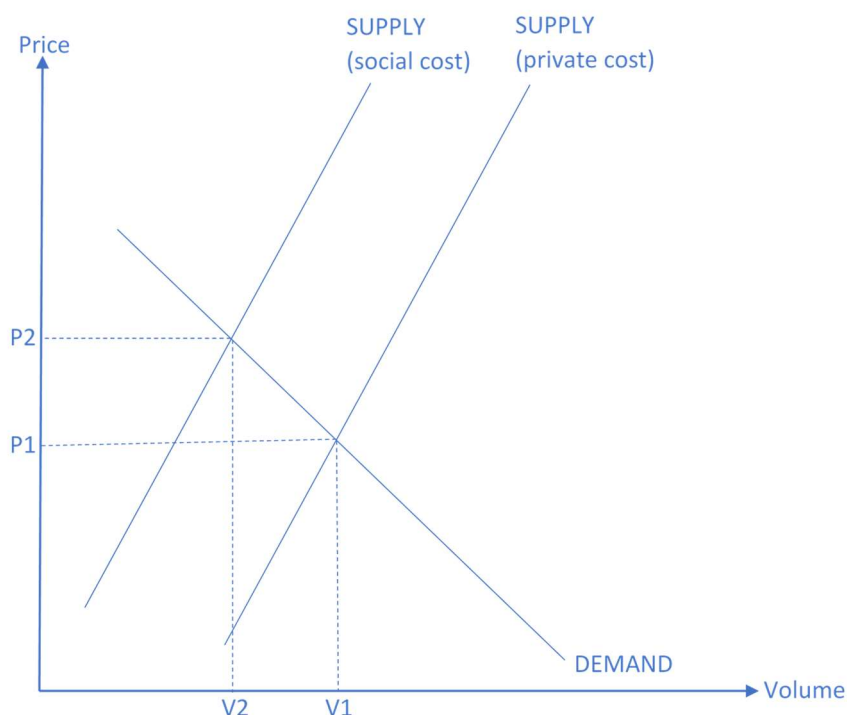


Figure 1

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We have illustrated the current market failures diagrammatically in figure 1. Consider the case of willing upstream sellers selling to willing downstream buyers. The supply (private cost) and demand curves deliver a market outcome with volume of water traded  $V_1$  and price  $P_1$  in the current water market. This is not an efficient outcome. The supply (private cost) curve only accounts for the water given up in the transaction by the seller, it does not account for the water lost in conveyance that is no longer available to third parties uninvolved in the transaction, being other water entitlement holders.

The supply (social cost) curve represents the true cost of the transaction, including the cost to uninvolved third parties. An efficient market would result in the volume of water traded  $V_2$  and price  $P_2$ .

It is clear the current market structure is resulting in more water being transferred downstream than would occur in an efficient market.

In the case of willing downstream sellers selling to willing upstream buyers the opposite is also true – less water is being transferred upstream than would otherwise occur in an efficient market.

### **Our lived experience**

The current water market has resulted in increased trade from upstream to downstream, away from the point of supply. The market has enabled irrigators to purchase cheaper land outside the established irrigation regions and to profit at the expense of other irrigators above the Barmah Choke. The collateral damage includes environmental degradation of the river system, erosion of yield on Murray general security entitlements and the resulting outcry that can be seen occurring in Northern Victoria and Southern Riverina communities.

We are in the fortunate position of operating a farm with access to water from both above the Barmah Choke (via Murray Irrigation Limited) and below the Barmah Choke (river pumping). Despite the water losses associated with pushing water further downstream and through the Barmah Choke, there is very little incentive for our business to irrigate through the highly efficient Murray Irrigation system. We receive the same volume of water either way. The market is delivering inefficient outcomes as there is no incentive for the individual to transfer water closer to the source of supply and reduce conveyance losses.

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If someone was to suggest that Eastern Australian grain producers should cover the cost of Western Australian grain producers bringing their product to the Eastern Australian market they would be laughed off as fools, but this type of inefficient and inequitable subsidization is not dissimilar to what is currently occurring in the Australian water market.

### **Solution**

To deliver a market that ensures the efficient allocation of water, the private cost of the transaction must be equal to the total cost of the transaction. A market where uninvolved parties are not affected, where externalities do not exist.

This can be achieved by including the conveyance loss or gain associated with the transaction in the transaction. If the conveyance loss of a transaction is 20%, the cost to the seller must be 1.2ML for every ML received by the buyer. In the case of a conveyance gain (trade from downstream to upstream), the cost to the seller must only be 0.8ML for every ML received by the buyer.

Only when the conveyance losses associated with a water trade are accounted for within the trade, and uninvolved third parties are not affected, will the water market be truly efficient.