Murray Irrigation

National Water Reform Review

Submission to the Productivity Commission

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Contents

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Executive summary

Water management policy has been developed over time and in response to climate and industry influences.

Murray Irrigation welcomes the opportunity to provide the following comments to this review. In preparing this submission, we focus on issues relevant to the NSW Murray Valley, which has been at the fore in regard to water reform since the 1960s.

Water management in NSW has evolved significantly in response to the myriad of water reform over the years. NSW have taken immediate measures to deliver on the objectives of various water reforms, including complying with the cap on extractions in the southern systems and meeting their obligations under the National Water Initiative.

It is of concern to Murray Irrigation and our customers that the National Water Initiative has not been uniformly adopted across all jurisdictions, therefore putting NSW – who have been proactive – at a perceived, if not real, disadvantage.

As identified in the issues paper published in March 2017, there have been significant reforms to water management since the first Murray Rivers Agreement was signed in 1917. Most of this reform has occurred following periods of drought. Most have been developed with a view to being better prepared for the next drought. The most significant and comprehensive reform has been the Murray Darling Basin Plan.

The Basin Plan was originally proposed as a means to streamline the management of the Murray-Darling Basin and improve ecological resilience. The result has been increased bureaucracy leaving water users and irrigation corporations at a disadvantage as they try to manage their water holdings under complex rules. At the same time, responsibility for implementing the Plan and associated catchment management regulations remains with the States adding to the complexity of water policy in Australia.

Meanwhile the Basin Plan focus on transferring volumes of water out of productive use, rather than on environmental outcomes has had social and economic impacts with little understanding of the environmental benefits. Furthermore, the jury is still out as to whether it will be effective in improving the drought resilience of the Basin.

So called ‘water reform initiatives’ have reached fever pitch since the turn of the century with three key water recovery programs commencing – the Living Murray initiative, Water for Rivers and the Basin Plan, as well as the roll out of the National Water Initiative. The key issue is that none of the earlier programs were complete and given time to be evaluated for their effectiveness before the next program commenced.

It is imperative for the communities of the Murray Darling Basin, and the businesses reliant on irrigated agriculture and value added industries, that there is no further reform that would lead to less water in the consumptive pool or tighter constraints on extractions and diversions. The Basin Plan must be given the opportunity to be fully implemented and time be given to conduct a thorough evaluation of outcomes and effectiveness.

Executive summary

Murray Irrigation welcomes the opportunity to provide the following comments to the Productivity Commission as they review National Water Reform. Murray Irrigation would be available to present to the Commission on request.

Background

Murray Irrigation Limited is an unlisted public company that provides irrigation water and associated services to almost 2,400 landholdings through around 3,000km of gravity-fed earthen supply channels over an area of 724,000ha in the NSW southern Riverina. Murray Irrigation's source of water is the regulated River Murray above Barmah Choke and the company's water supply is almost exclusively NSW Murray General Security Water.

Murray Irrigation operates a Water Exchange to facilitate the temporary trade of allocation water between water users. This exchange is open to anyone who establishes a Water Exchange account. The operation of the Exchange complies with the Water Market Rules. Daily trade information, including volume and value is freely available on the Murray Irrigation Water Exchange webpage.

Murray Irrigation's shareholders are farmers, with food and livestock being the focus of regional production for both domestic and international markets. With a regional population of around 33,000, irrigated agriculture is the foundation of the social and economic wellbeing of our towns and businesses. Prior to the extreme drought of 2006 and 2007, the Murray Irrigation area of operations produced 50 percent of Australia's rice crop and, in terms of state production, 20 percent of milk, 75 percent of processing tomatoes and 40 percent of potatoes.

Murray Irrigation is a member of both the National and the New South Wales Irrigators' councils.

1 Water reform

1.1 Past water reform

The Murray River has been the focal point for interjurisdictional water management since Australia was founded with the first agreement being signed in 1915. The driving force behind the need for an agreement was the Federation Drought. The first agreement laid the foundations for the development of the Murray River to provide water for navigation and irrigation.

From that time until the late 1960s governments were focussed on development. The idea of "drought proofing" the nation was inherently linked to food and fibre production.

Construction on the Murray Irrigation districts commenced in 1933 and continued to 1967 as the region evolved from dryland grazing properties to irrigated soldier settler blocks. Industry developed in line with water availability. By 1967 the region was a vibrant broadacre cropping district producing rice, dairy, cereals and livestock. It was also the first time demand for water outstripped supply in the district leading to the introduction of volumetric allocation in the Murray Irrigation districts. This was effectively the first cap on extractions.

In the 1980s the focus shifted from development and production to the environment with rising shallow water tables in the Wakool district causing incidence of soil salinity. In 1995, the Murray Irrigation districts were amalgamated and privatised. At the same time a long-term project to redress the soil and environmental degradation commenced with the Land and Water Management Plans.

Since privatisation, Murray Irrigation has faced a barrage of reforms with none being fully implemented and evaluated for efficacy before the next is proposed.

- 1997 – Cap on extractions.
- 2002 – The Living Murray program agreed to – to recover 500GL for environmental sites.
- 2003 – Water for Rivers implemented to recover water for the Snowy and Murray rivers.
- 2004 – National Water Initiative signed, laying the foundation for framework of trade of water entitlements.
- 2007 – the Water Act
- 2012 – The Murray Darling Basin Plan.

All these reforms have had an impact on industry, Basin communities and their resilience and sustainability.

For example, Murray Irrigation's network was constructed at the peak of the growth and development focus of Government between the 1930s to the 1960s. It was built with an operating capacity of around 1,400GL per year. On privatisation in 1995 the company was issued almost 1,200,000 NSW Murray General Security entitlements (=1ML at 100 percent). Following more than 20 years of water reform and environmental water recovery programs, our long term forecast average annual delivery is now 600GL per year due to entitlement transfer to the environment. That means Murray Irrigation is now operating at 40 percent capacity, which is not an efficient way to operate a business.

1 Water reform

1.2 National Water Initiative

The National Water Initiative (NWI) was signed off in 2004 in the middle of the Millennium Drought. It is our contention that the NWI, and preceding reform, were never given adequate time to be assessed for their effectiveness before further reform was undertaken.

The prolonged and extreme Millennium drought led some to believe that the NWI and resulting NSW water sharing plans (WSPs) had failed. We contend that, if allowed to be implemented and operational in 'normal' weather years, given time, the NWI and WSPs would have proven to be successful at addressing the equitable sharing of available water resources and, as a result, environmental concerns.

The development of a robust water market through the NWI, along with lessons learned from the drought, led to the adoption of a new basis for planning provisions. These new provisions, combined with other environmental strategies such as the Living Murray program or Water for Rivers, meant that we were already better equipped, from both an environmental and a water management perspective, to deal with the next drought. However, more policy and reform was to come by way of the Water Act 2007 and the Basin Plan. This means we will never know if the NWI would have been effective had it been given time and circumstances to be fully implemented and evaluated.

The NWI, agreed to by all states, called for a triple-bottom-line approach to managing the Murray-Darling Basin to increase the efficiency of Australia's water use and address environmental concerns:

> *"The Parties agree to implement this National Water Initiative (NWI) in recognition of the continuing national imperative to increase the productivity and efficiency of Australia's water use, the need to service rural and urban communities, and to ensure the health of river and groundwater systems by establishing clear pathways to return all systems to environmentally sustainable levels of extraction*."[1]

Unfortunately, we believe the Water Act 2007 moved away from this equitable approach undermining the intent of the NWI.

1.2.1 Key benefits of reform to date?

A key piece of reform was the recognition of water entitlements as a property right (National Water Initiative). This recognition placed a value on water which has led to significant improvements in water use efficiency and productivity.

On privatisation, Murray Irrigation was operating at around 75 percent efficiency where as we now consistently achieve over 85 percent efficiency in our earthen, gravity-fed channel system. That efficiency has been achieved by upgrading infrastructure and changing the way we manage the system to minimise losses keeping the value within our network. Similarly, our customers have improved their water use efficiency to maximise the value gained from their entitlements.

The establishment of the water market has provided farmers with a choice. Depending on the season and the value of water in the market, they can now choose to use or sell their annual allocation and either way, they will get a return on that water.

[1] *Paragraph 5 of the Intergovernmental Agreement on the National Water Initiative signed June 2004*

1 Water reform

The water market – and the value of water – has led to the improved efficiencies and diversity of commodities now being grown across the Basin. This has had far more of an impact on efficiency than any other Government policy or water reform.

1.2.2 Negative impacts of reform to date?

Placing a value on water and recognising the property right has led to the utilisation of formally dormant water licences. It has also increased competition for water at the same time as reducing the "available product".

The NWI set about addressing the "overallocation" of the system and combined with the previous cap on extractions (1997) led to changes in the allocation system for the NSW Murray, limiting announced allocations to 100 percent.

While the NSW allocation system enables allocations and extractions to vary in accordance with water availability, the changes in practice led to less water being available in some years – particularly wet years. Reduced availability has led to increased reliance on the temporary market.

Further, the NWI's objective of developing an open and transparent market whereby allocation can be transferred intra and inter valley means that the dynamic equilibrium for water use has shifted.

A recent study by RMCG into water use and the impact of the Murray Darling Basin Plan in the Goulburn Murray Irrigation Districts found that three industries now drive water use and their profitability and the drivers for water use are intrinsically driven by the price of allocation on the temporary market[2].

Continued water reform and water recovery by the government is exacerbating the competition in the water market. Increased horticulture developments in the Sunraysia and NSW lower Murray/Murrumbidgee areas are further shifting water use and impacting the water market. Broad acre irrigators are increasingly competing against other commodities that have larger capacity to pay in years when water availability is strained. This in turn may lead to a perverse impact on the production of these vital crops.

1.3 The water market

The implementation of the NWI now means there is a connected market across the south of the Murray Darling Basin, providing more opportunity to water users in our valley as mentioned above, however, it also means there is more competition and volatility in the market. Water market participants have to be more alert to market moves. Water is no longer an input, it is a commodity in its own right.

In the southern connected Murray Darling Basin there is significant opportunity for the movement of water between valleys and between states. There is also significant differences in how the different jurisdictions manage their water registers and report market information.

Rightly, there are limits to trade between Valleys to protect the rights of water holders, known as Intervalley Trade Limits (IVT). However, how these limits are managed and reported on varies between jurisdictions and the impacts can be significant.

[2] *Basin Plan – GMID socio-economic assessment, Prepared for the GMID Water Leadership Forum, RMCG, Sept 2016*

1 Water reform

	Murrumbidgee-Murray IVT	NSW to Victoria IVT	Barmah Choke trade limit
Limit	Net 100GL trade out of the Murrumbidgee. Net 0GL trade to the Murrumbidgee.	The lesser of net 200GL or a volume that keeps the risk of spill below 50 percent.	Trade from upstream of Barmah Choke to downstream is limited to the volume that has been traded from downstream to up.
Reporting	Website updated 9am daily. Trade opens when the IVT falls below 85GL.	Website updated live as trades are executed. Allows constant monitoring of available trade capacity.	Website updated when the MDBA is consulted about a trade and daily.

There are several exchanges now operating in the Australian water market. Some, like H2OX and the WaterFind exchange operate across jurisdictions while others including the Murray Irrigation Exchange offer a service specialised in a single valley. The Murray Irrigation Exchange allows participation by anyone who has an exchange account, however, if they wish to use the allocation outside of the Murray Irrigation area of operations, the volume must be transferred off the Murray Irrigation licence through the WaterNSW approvals process and there may be a time delay.

Again, the difference between jurisdictions is significant. The Victorian Water Register has an automated process for allocation trade approval allowing trades to be approved within a matter of hours. On the Murray Irrigation Exchange, we can provide instant access to purchased volume if it is to be used within our area of operations because we are the approval authority. This instant access is attractive to water purchasers.

Unfortunately, the process through WaterNSW is not automated and therefore takes time for market participants to receive the required approvals.

Murray Irrigation supports the streamlining of trade processes across jurisdictions to improve market access and level the playing field.

1 Water reform

1.4 Ongoing reform

Following the NWI, and as a result of the ongoing Millennium Drought, Basin states and the Federal Government commenced negotiating a new set of water reform. These negotiations failed and the Federal Government used its constitutional powers to develop legislation to deliver against historic international agreements.

The Murray Darling Basin Plan was developed in 2012 (following passage of the Water Act 2007). Since then, state governments have entered intergovernmental agreements to facilitate its implementation.

The Basin Plan has an implementation stage out to 2024. While the staged implementation is welcome as it allows transition, aspects of the reform are adding to the uncertainty and instability for impacted communities.

The inclusion of a sustainable diversion limit adjustment mechanism, including the 11th hour addition of “up-water” (450GL efficiency measures), means the final break-down of water recovery will not be known until the mechanism has been run, the states apportion their share of the downstream recovery target and projects are evaluated for effectiveness.

1 Water reform

Already the Plan and the Water Act have had an impact on the water market, as evidenced by the Aither Report commissioned by the MDBA, which found an increase of about 25 percent on temporary water prices relative to historic modelling[3]. Murray Irrigation has previously raised concerns with the effect of Government water entitlement purchases on prices. The impact of less water in the consumptive pool became evident in the 2014-15 water season with record high prices for allocation in a year of high water availability.

A strong and active market is welcome; however, it alone is not the answer to social and economic impacts resulting from the implementation of the Plan and the loss of water from productive use.

A core concern for Irrigation Infrastructure Operators (IIOs) like Murray Irrigation is the increased reporting requirements and the added complexity in the water market created by the multiple layers of State and Federal legislation and regulation, particularly since the passage of the Water Act 2007 and the Basin Plan.

The Water Act led to the creation of the multiple rules relating to the water market, water charging and information administered by multiple agencies.

The Water Act has also created other areas of duplication. A key example is the fact the Water Act establishes the Commonwealth Environmental Water Holder but provides for the Murray-Darling Basin Authority to manage water held under the Living Murray Initiative. Therefore, there are two agencies managing environmental water to achieve virtually identical objectives in the River Murray and tributaries.

The Productivity Commission must consider whether this ongoing reform is continuing to deliver on the objectives of the NWI or is encroaching on the capacity of the states to meet their NWI obligations.

1.5 Cost of reform and cost recovery

Under the NWI, governments have made commitments to best practice water pricing.

The Water Act Section 10 outlines the basis for Basin water charge, water trading and water market rules, including charges relating to Basin water resources and water service infrastructure.

While the intention of this section and the relevant rules is good, the reality is that they have not achieved the intended goal and the result is that states that were already regulated now have an additional layer of bureaucracy (as do private and public IIOs), while states that have not been regulated in the past are still not captured. For example, private diverters in South Australia pay no bulk water charges, unlike diverters in Victoria, Queensland and NSW. This highlights that there is no consistency and or equity in water charges across the Basin which also assists distort permanent and allocation markets.

Adding to the inconsistent nature of water charges throughout the Basin, there is no uniformity in how State Governments recover MDBA charges. In NSW the majority of these charges are passed onto irrigators through both State Water and NSW Office of Water charges.

[3] *Basin Plan – GMID socio-economic assessment, Prepared for the GMID Water Leadership Forum, RMCG, Sept 2016*

1 Water reform

Further, despite the WCIR applying to water charges in relation to Basin water resources, they do not capture the MDBA which is the agency responsible for coordination of River Murray operations and water sharing under the Murray-Darling Agreement. The MDBA receives funding from State Governments and the Commonwealth for river operations and joint programs (discussed further below), however, there is no transparency for irrigators in these cost sharing arrangements. The MDBA only reports against one outcome under the federal budget and there is no obvious distinction between Plan costs, river operations costs and costs of other programs. The lack of transparency led the NSW Government to review the state's contribution to the MDBA that subsequently resulted in a Ministerial Council review of joint programs.

The MDBA produces a Corporate Plan which outlines internal business areas and costs, however, this document is not publicly available. The corporate plan should be made public with some form of determination to review and analyse costs. Without this, it is impossible for stakeholders, including Governments to be confident they are paying only what is effective and efficient, or that funds earmarked for one business unit are not cross-subsidising another business unit.

2 Conclusion

2 Conclusion

Water management in NSW has evolved over time to suit water availability and industry in the relevant valleys. NSW has been proactive in implementing policy to meet its NWI obligations.

Australia has a variable climate and the NSW system of allocations and multiple water products of varying reliability is suited to allowing flexibility in different water availability scenarios.

Since the turn of the century, the water market has increasingly played a more significant role in productive water use, while at the same time, opening the way for investors to enter the market.

Increasing demand for environmental outcomes, decreasing volumes of available water due to Government water recoveries and increasing competition in the market is changing the way water holders operate. At the same time, water reliant businesses and irrigation infrastructure operators are having to adjust to a future with less water.

All of these mean access to timely and transparent information will be increasingly important to ensure a level playing field and allow better business planning.

At the same time, costs of water management – including any future augmentation of supply – must be appropriately shared across the community to recognise the public benefit of river infrastructure and management.

In considering the implementation of the NWI, the Productivity Commission must look at the cumulative impact of water reform over time and the effectiveness of the continual flux of water policy and management regimes.

Businesses, industry and communities need time to adjust to the current water management regimes – not have to deal with more.

Murray Irrigation supports the intent of the NWI but believes it has been undermined by the further reform that has occurred.

The most effective driver for water use efficiency is the water market and it must be allowed to operate free of continued change and regulation.

Michael Renehan
Chief Executive Officer