Murray Irrigation

Inquiry into water use efficiency in Australian agriculture

Murray Irrigation submission to House of Representatives Standing Committee

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Contents

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1. Background

1.1 Murray Irrigation

Murray Irrigation is an unlisted public company that provides irrigation water and associated services to approximately 1,200 family farm businesses over an area of 724,000ha through 3,000km of channels in the NSW southern Riverina.

Murray Irrigation is strategically located between the Murray River and the Billabong Creek (on the Murrumbidgee system) with our infrastructure footprint covering a large part of the Edward-Wakool Rivers system. We are bordered by the Barmah-Millewa and Koondrook-Perricoota Forests to the south and the Werai State Forest on the north-west.

Murray Irrigation works closely with the NSW Office of Environment and Heritage (OEH) to facilitate local environmental watering within our region using Murray Irrigation infrastructure including for the Murray private property wetlands watering and projects to deliver water into the Tuppal Creek, Colligen Creek and Jimaringle, Cockran and Gwynnes Creeks, among others.

Murray Irrigation is a not-for-profit company, governed by a Board of Directors; comprised of six shareholder directors and two non-shareholder directors.

Murray Irrigation's shareholders are farmers with food, fibre and livestock being the focus of regional production. Murray Irrigation's source of water is the regulated River Murray and the company's water supply is almost exclusively NSW Murray General Security water.

1.2 Membership

Murray Irrigation is a member of both the NSW Irrigators' Council and the National Irrigators' Council. We work with these bodies to ensure the interests of irrigators are represented.

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Infrastructure spending has consistently been the preferred method for water recovery as farms with improved water use efficiency maintain or improve their productive capacity. However, it is the view of Murray Irrigation that all water recovery has an impact on the region from where it came, regardless of whether it is recovered though buyback or efficiency measures.

Due to various changes in water reform, the development of the southern connected water market and climate variability, irrigators have been changing their operations to use water more efficiently long before Government-funded programs were introduced.

It could be argued that less water available and ensuing rising market prices would have created incentives for self-funded investment, even without Government-funded initiatives.

Recent Government-funded programs of investment in infrastructure to generate water savings have merely brought forward the timing of that investment, which would have been triggered in due course as the water market generated signals for water use efficiency investment.

In that case, the water would have been retained for production, while under the current schemes, most of that saving has been withdrawn from production.

While the Government-funded programs certainly provided a welcome capital injection into the local economy, they have led to a loss of potential production in the longer term (due to less water). In turn, this has also led to an increase in water prices both on the temporary market and water delivery prices.

Murray Irrigation appreciates the opportunity to provide this submission to the House of Representatives Standing Committee inquiry into water use efficiency in Australian agriculture. Below we have addressed the four respective points in the terms of reference.

2.1 Adequacy and efficacy of current programs in achieving irrigation water use efficiencies

There is no doubt that the efficiency programs that Murray Irrigation has been involved in have contributed to greater water use efficiency for both the company itself and our customers.

However, it must be acknowledged that due to various changes in water reform and climate variability, irrigators had been changing their operations to use water more efficiently long before the Government programs were implemented.

Murray Irrigation's level of water delivery efficiency has continued to improve well before the recent programs. At the time of privatisation in 1995, the company was operating at an average delivery efficiency of approximately 75 percent. Prior to the start of Murray Irrigation's PIIOP Round 2 project, we had already achieved a delivery efficiency of 85 percent. We expect this figure to exceed 90 percent upon completion of our PIIOP (Round 2 and 3) projects.

While recent programs such as the On-farm Irrigation Efficiency Program (OFIEP) and the Private Irrigation Infrastructure Operators Program (PIIOP) have certainly been well supported by our customer base, irrigators have also undertaken substantial self-funded efficiency improvements on-farm.

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Water reform has been ongoing in NSW for over two decades; this includes the 1997 cap on extractions and the 2004 implementation of the Water Sharing Plan. Reform has had a significant effect on water use efficiency and the ability of individual enterprises to adapt to reductions and maintain their developed infrastructure and capital value of farm assets.

The NSW Murray region has also experienced severe impacts from the extended drought (2002 to 2009), with many farm-businesses forced to restructure or simply sell. Together with a reduction in the volume of water entitlements available for production (as a result of the Murray-Darling Basin Plan), there is increasing business stresses on irrigated production in the region.

Murray Irrigation itself now has almost 30 percent less entitlements than its original licence volume.

It could be argued that less water available and ensuing rising market prices would have created incentives for self-funded investment, even without Government-funded initiatives. The two programs of investment in infrastructure to generate water savings have merely brought forward the timing of that investment, which would have been triggered in due course as the water market generated signals for water use efficiency investment.

In that case, the water would have been retained for production, while under the current schemes, most of that saving has been withdrawn from production.

Granted, the investment has directly enhanced the productivity of those properties taking part in the above-mentioned programs. Investment in new irrigation infrastructure has promoted expansion and enhanced production by allowing economies of scale to be achieved.

There have been scenarios though, that a proportion of those growers who participated in the on-farm programs used the revenue from the scheme to re-purchase water at a lower market rate, and so expanded the scale of their production. Through this approach, the on-farm schemes actually increased the pressure on the water market in two ways: through the transfer of savings to the Commonwealth; and by participants then entering the temporary or permanent market to utilise the infrastructure and realise a return on investment.

While the Government-funded programs certainly provided a welcome capital injection into the local economy, they have led to a loss of potential production in the longer term (due to less water). In turn, this has also led to an increase in water prices.

2.2 How existing expenditure provides value for money for the Commonwealth

Murray Irrigation's PIIOP Round 2 project received funding of $169.2 million. This was provided from the Sustainable Rural Water Use and Infrastructure Program, via the Commonwealth Government Department of Agriculture and Water Resources. The project commenced in 2012 and is planned to be completed by October 2017.

Together with PIIOP Round 3, the Government-funded programs have allowed Murray Irrigation to implement projects that improve the efficiency of our company infrastructure and water delivery to our customers on-farm.

In return, the Department acquires both conveyance and general security water entitlements that result from these water savings projects, and assign them to the Commonwealth Environmental Water Holder (CEWH).

The CEWH now utilises the entitlement acquired from the project to provide environmental flows.

In theory, this helps irrigation communities to adapt to a future scenario of reduced water availability.

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Murray Irrigation has also been a Delivery Partner in the Commonwealth's On-Farm Irrigation Efficiency Program (OFIEP). We successfully completed the Pilot Program, Round One and Round Two. We are currently implementing Round Four and Round Five of these programs.

Each round includes individual farm projects which entail funding by the Commonwealth for on-farm works for more efficient irrigation, in return for water entitlements being transferred to the CEWH.

The Commonwealth's OFIEP projects have seen an increased investment in on-farm projects and water savings on irrigated landholdings. The water entitlements transferred to the Commonwealth contribute towards the Murray-Darling Basin Plan target for the NSW Murray, at the same time as improved irrigation systems making a positive contribution to our community's ability to cope with less irrigation water in the future.

Feedback from many participating customers is that the works result in improved irrigation efficiencies, reduced labour and increased production.

Keep in mind though, while the initiative provided a welcome capital injection into the regional economy and helped maintain levels of production and productive value in the short term, it has, however, led to a loss of water overall. This has an impact on water prices and regional production long term.

Furthermore, the ongoing success of such projects is limited due to the fact that with the levels of efficiencies already realised, there are not many more savings to come. To use a common phrase: *The low hanging fruit has been picked.*

2.3 Possible improvements to programs, their administration and delivery

While Murray Irrigation is happy to identify ways to improve the roll-out of infrastructure programs, and is supportive of new and ongoing infrastructure investment, we do not support any further water recovery from our region over and above the finalisation of current projects. Future investment should be tied to economic sustainability and growth, not water recovery.

As we've stated in previous submissions, Murray Irrigation supports the move to a panel of Delivery Partners administering a procurement program as a means to streamline the delivery of projects, reducing the excessive delays experienced through the OFIEP grants program.

However, as is the case with irrigators' participation, Delivery Partners need to ensure they get value out of undertaking the additional workload that will be required to meet the ongoing criteria of being a Delivery Partner.

Previous rounds of projects provided a percentage of the "total requested project payments" to cover administration and project management costs. While this amount is reasonable for general project management, the restriction does not allow for Delivery Partners to meet the costs of implementation of increasing safety requirements, or being ready to manage a project; including advertising, maintaining a dedicated webpage, having adequate insurance and salaries and labour. This is particularly true if uptake of projects through a Delivery Partner is either limited or sporadic creating gaps in activity. In these instances, costs are ongoing but payment is tied to activity through project delivery.

There are two possible solutions to this issue:

1. Provide an annual stipend to Delivery Partners to meet the reasonable ongoing costs of preparation to deliver projects for the duration of the program.
2. Provide Delivery Partners income certainty by indicating a guaranteed amount of funding for their projects – thus also creating an incentive for Delivery Partners to find projects to achieve the funding target.

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In many cases, projects which irrigators would like to implement, are not “shovel ready”. To do this requires extensive planning and design costs which may not then materialise should the project not be successful. A delivery model that provides irrigators longer term certainty to recover costs involved in planning and design will result in more positive participation with the program.

If a proposed project then meets certain criteria, the Delivery Partner should be in a position to rapidly implement the project on-ground to meet the irrigator’s timeline requirements in and between cropping periods. An example is the Murray Land and Water Management Plans where this program was implemented for 13 years by Murray Irrigation with $100M of funds sourced from both the State and Commonwealth Governments.

By moving to a procurement model, there must be an incentive for Delivery Partners to ensure they retain the requirements of eligibility, even when there are no active projects underway.

For irrigators, they need longer term certainty to plan and design projects and timely approval and implementation of on-ground activities. If a project is tied to water recovery, there needs to be a much better value applied to the entitlements in recognition of the changing water market.

2.4 Other matters, including, but not limited to, maintaining or increasing agriculture production, consideration of environmental flows, and adoption of world's best practice.

From a Murray Irrigation perspective, infrastructure spending has consistently been the preferred method for water recovery, as farms with improved water use efficiency maintain or improve their productive capacity.

However, it is the view of Murray Irrigation that all water recovery has a negative long term financial impact on the region from where it came, regardless of whether it is recovered though buyback or efficiency measures.

Water recovery in Murray Irrigation’s area of operations equals 28 percent of the original general security licence volume. Of that, four percent was recovered pre-Basin Plan. Basin Plan related recovery breaks down to 71 percent through open tender buyback, 17 percent through on-farm irrigation efficiency projects, and 13 percent through PIIOP, which has also seen less than four percent of the conveyance licence recovered. Overall, for Murray Irrigation, this means an annual loss of $3.6M due to less water sales.

All water recovery in the Murray-Darling Basin has an economic impact, regardless of how it is recovered. While buyback is the least preferred mechanism for water recovery due to the removal of both water and productive capacity, recovery through infrastructure investment still has an impact due to the reduction of water in the consumptive pool not being matched by a reduction in demand.

Further, in group schemes such as Murray Irrigation, while the individual participant in the project is compensated, the negative impact is socialised across all members due to the necessity to continue to recover fixed costs while delivering a lower volume of water.

If there is to be a further efficiency program, it is imperative that there is scope and capacity to deliver projects in the context of the network of operation. The OFIEP restricts projects to on-farm works, limiting the capacity for the irrigator to work with Murray Irrigation, the network operator to identify the best outcome for both the farm business and the irrigation network. On the other hand, PIIOP Round 3

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will be limited to projects that address the needs of the network, with no capacity to configure farm layouts to be better serviced by the network.

Murray Irrigation believes any future program should allow a hybrid model where the irrigation infrastructure operator can work with the irrigator to find the best solution for both parties. For example, in a scheme such as Murray Irrigation's, efficiency solutions cannot be isolated to works on-farm or network works. How an irrigator connects to our system is largely driven by their on-farm layout. Meanwhile that connection is a major cost driver for both our business and the irrigator's business. Therefore, changing the way irrigators connect, where they connect and the infrastructure used can have significant efficiency and potential cost benefits for both the irrigator and Murray Irrigation.

This hybrid model would also increase the incentive for the infrastructure operator to actively seek projects where there are system savings and avoid over-capitalisation in other areas.

To correct the financial imbalance, on-farm irrigation efficiency programs should focus on improving system efficiencies, but the water savings should remain in the region. For example, water savings gained through efficiency programs could be transferred to Murray Irrigation. The company could then either sell the water or issue it back to customers to reuse in the region.

Further, the test for social and economic maintenance or improvement must be robust and must consider the regional impacts. It has been our experience that water recovery programs to date compensate the individual but socialise the negative impacts.

With regards to environmental water management, there should be more incentive for environmental water managers to utilise, where possible, existing infrastructure. Murray Irrigation has an agreement with the NSW Office of Environment and Heritage to utilise our system to deliver environmental flows and wetland watering for themselves and on behalf of the CEWH. There is significant capacity to increase these programs in our area which would benefit the local environment and the local economy because it would be utilising infrastructure that is currently under-utilised as a result of water recovery.

The Murray irrigation system was designed to deliver between 1,000GL and 1,500GL per year. The outlook for the company, as a result of water recovery, is a long-term average delivery of around 600GL per year. That means the scheme, which is fully maintained, is not fully utilised. One opportunity to reverse this situation is to deliver more environmental flows through our scheme.

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It is the view of Murray Irrigation that all water recovery has a negative financial impact on the region from where it came, regardless of whether it is recovered though buyback or 'efficiency measures'.

We believe enough water has been taken from productive use and it is time to use the Sustainable Diversion Limit Adjustment Mechanism (SDLAM) to look at ways to better manage environmental water to achieve outcomes, rather than flows. By the same token, we believe there is no requirement for further water recovery through efficiency measures, particularly when the incremental benefit of that recovery does not outweigh the negative social and long term economic costs to communities through less water.

Irrigators have already undertaken substantial efficiency improvements, both Government and self-funded.

Due to various reform and climatic influences, farmers have had no choice but to embrace research and development and take advantage of technological change to improve their bottom line. In turn, this has helped increase their water use efficiency.

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It could be argued that the sector is now viewed as a ‘world’s best practice’ model efficiently producing more food and fibre.

Michael Renehan
Chief Executive Officer