



Murray Irrigation

**Murray-Darling Basin Plan Implementation Review 2023
- Productivity Commission Inquiry
Submission
31 July 2023**

www.murrayirrigation.com.au

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1 Executive Summary

We welcome the opportunity to once again¹ provide constructive contribution to the Productivity Commission regarding the ongoing and future successful delivery of the Murray-Darling Basin Plan (The Plan).

Murray Irrigation Limited's (MIL) collaboration and genuine cooperation with environmental water managers, landowners and other stakeholders over the past decade has enabled a greater understanding of what can be achieved by applying water for environmental benefit, the environment, our irrigators and our local community. In the period since the Productivity Commission's last review, we have enhanced our focus to work with community and government partners, including First Nations Groups, to develop shared Plan objectives. We are committed to continue supporting environmental water managers to achieve improved environmental and social outcomes for the Murray-Darling Basin (MDB) and water-dependent communities; and to incorporate these aims into MIL's business strategy.

We acknowledge that the already-large volume of water recovered for the environment has been important to provide the means to maintain and enhance the health of the MDB rivers and wetland systems. Whilst acknowledging this importance, we note that there are still many physical, legal and political barriers to delivering this recovered water at the optimal time and location to enable optimum river efficiency and environmental outcomes.

The production security to local communities from irrigated agriculture creates employment through not only the growing of intensive, valuable and high yielding crops, but also through transport and the local processing of irrigated crops². The livelihood of our business, and of the vibrant communities within our area of operation, depends almost entirely on continuing access to a significant share of the annual allocations from the NSW Murray general security water entitlements held in southern NSW. Given this, the overwhelming concern of the 1,300 plus family farm owners who are our customers and shareholders is related to water availability. In this regard, we specifically request for the Productivity Commission to recognise:

- i. The need for time for remaining irrigators to adapt to the reduction in annual water availability as a result of the recovery already undertaken.
- ii. The threat of further water recovery reducing the volume available and used within the region.
- iii. The risk of future measures to deliver The Plan that may limit fair access to water for our users in the future.

This submission aims to articulate our intention to remain open to supporting The Plan's environmental outcome objectives, based on a shared understanding and agreement on the actions needed, and assuming there is enough time and support available to enable successful delivery of the planned environmental

¹ Murray Irrigation Response to Productivity Commission 2018 review of the Murray-Darling Basin Plan

² Notably the local processing and packing industries dependent on production of irrigated almonds, milk, rice, wine, citrus, stone-fruit, table grapes and cotton.

improvement. As a result of the Plan's development and implementation over the past decade, there is an acute lack of trust amongst farmers and communities in the consultation processes; low confidence in the effectiveness of how the important Sustainable Diversion Limit Adjustment Mechanism (SDLAM) projects are being delivered on-the-ground; and genuine fear about the severe and wide-ranging impacts on agricultural-reliant communities as a result of ongoing uncertainty about future water availability. These issues are even more acute if government maintains the now unrealistic deadline of June 2024 for the Plan's implementation.

MIL strongly advocates for the following Plan implementation improvements:

- **More effective consultation and engagement:** We need clear, consistent policy and strong leadership from governments and agencies. This can only be achieved through well-designed and effective consultation that is targeted and aligns very specifically to the adjustments that need to occur for farmers to meet water recovery targets and to plan for the future. Consultation should be tailored to address individual farmers' areas of concern, and agencies should be equipped to engage people effectively. The SDLAM projects, which remain the most appropriate mechanism to balance industry viability with improved environmental outcomes, would be better delivered under a model where communities with local expertise are consulted with, and engaged, as genuine project partners.
- **Better institutional arrangements:** Under the current water pricing arrangements, MIL is mindful that a large portion of the costs of water management and regulations are borne by water users - predominately irrigators. The 'requirement for administration' duplication between States and the Commonwealth in the delivery of a range of Plan initiatives not only creates confusion, but can (and has) lead to significant project and program inefficiency. The current arrangements to deliver supply and efficiency measures have proved slow to prepare and have often been ineffective. The implementation of the Plan should embrace innovative approaches to achieve stated targets, avoiding a rush to water recovery through market buybacks. We believe the establishment of an empowered, independent governing body could be appropriate. We have expanded on this point in our response to Key Question 3.
- **Adaptation takes time:** Any future targets need to be considered in the context of the ongoing uncertainty surrounding water availability in a changing climate, and the exponential rate of change which has already occurred. Water recovery must adequately manage the rate of change (water use and availability), acknowledging that we have experienced more than a decade of extreme weather events and impacts of Covid-19 (which have occurred concurrently to implementation of The Plan). Water recovery targets should be structured in a way that maintains and (where needed) rebuilds the health and prosperity of not only the environment, but agricultural-reliant towns and communities that have had to adapt. For MIL to be able to provide a sustainable service and avoid loss of customers and costly stranded assets, farmers must be equipped to adapt at a rate so they can thrive. We strongly believe that empowering our farmers to become part of the water recovery offset projects should not be abandoned in favour of water purchasing which, even voluntary, will decimate Southern Basin communities. We are concerned that current mechanisms designed to protect irrigation water supply organisations and their remaining customers (e.g. the termination fees for willing water sellers seeking to revert to a farming system with less irrigation) fail to acknowledge the dominant role of water supply organisations (similar to MIL), and do not recognise the full cost to local economies, the local community and particularly the threat to the survival of remaining irrigators dependent on shared infrastructure³.

³ Analysis completed by MIL. 'Murray Irrigation Business Review' 12 July 2023.

- **Defining successful water recovery:** Despite the issues related to project delivery, the SDLAM initiative goes a long way to recognising that delivering projects that provide measurable environmental benefit is more important than a simple metric of *Megalitres held* in an environmental watering account.

In response to the Federal Government's February 2023 announcement regarding its further water-purchasing intentions, we hold deep concerns at the prospect of even more direct buybacks from the already shrinking consumptive pool. There are significant risks to our communities and the viability of our company if we lose another significant percentage of the water entitlements that currently support irrigated agriculture. In the event this measure is enacted, MIL and the communities located within our service footprint may need to seek financial assistance from the Government to assist with structural adjustment so that we are able to step through a potentially very difficult and painful process.

When we lose water, we rapidly lose jobs and community members at a rate that significantly exceeds the irrigators and the broader dependent community's capacity to adapt.

We do not want to see a return to the dark days of direct buybacks that led to the polarisation of communities against the environment. We strongly encourage governments to review the June 2024 timeline to enable an extension to the timetable for the delivery of SDLAM projects, with a renewed program of works, and a streamlined delivery model. An extension, combined with an improved project delivery model (one strongly supported by state agencies) and the addition of a range of further initiatives, would enable a sincere, dedicated and collaborative approach to completing the scheduled initiatives well, and would endorse further ways to recover water. It would also create opportunities to deliver a suite of more innovative projects that will deliver genuine efficiencies throughout existing river operations. We encourage the Murray-Darling Basin Authority (MDBA) and the Plan delivery partners to pursue the outputs of the Plan and find a way forward to deliver the current SDLAM projects as well as a range of more recently introduced initiatives.

MIL has progressed and matured significantly since its first involvement in local environmental projects; this involves applying water to local wetlands through the Murray-Darling Wetlands Working Group in the 1990s and the engagement by farmers in the land and water management planning (LWMP) initiatives throughout 1995-2010. More recently, we have observed the delivery of promising SDL offset projects falter because of difficult planning approval processes, the escalating estimated costs of the works, adverse climatic conditions (severe drought followed by flood) and inadequate consultation that has resulted in the lack of community buy-in. Furthermore, we clearly understand the co-dependency of the success of many yet-to-be-realised environmental watering initiatives, including a number of the current SDLAM projects, on the delivery of the Constraints Management Strategy (CMS). The constraints that have been identified in the Murray River between Yarrawonga and Wakool Junction are severe. MIL believes we are well equipped to assist in resolving these issues.

In this submission, we outline an innovative and forward-thinking environmental initiative that MIL is proposing to deliver largely within the Mid-Murray region of NSW. This initiative is supported by our customers and is separate to the current suite of initiatives related to the initial SDLAM projects and The Plan delivery to date. This initiative could deliver tangible environmental and constraints management benefits to

hundreds of disconnected wetlands and has the potential to significantly reduce the need for a significant volume of further water recovery.

For the remainder of the Plan to be successfully delivered, a realistic and extended timetable for a broader range of SDLAM project delivery needs to be established and strongly supported by state partners, and those living and working in the MDB. The initiatives developed in the original suite of SDLAM projects have been difficult to deliver⁴. To successfully deliver these initiatives, and a range of others (including MIL's abovementioned proposal), state project delivery partners need to commit appropriate resources, communities need to be well engaged, and commercially sensible and commercial contracting models need to be utilised. The deadlines for SDLAM delivery should not be so rigid and threatening, and the embedded threat of 'reverting to buybacks' relating to the current 30 June 2024 deadline should be sensibly revised.

2 Summary of key points

The following outlines a summary of key points outlined in MIL's submission:

1. **Impacts on MIL and our landholders:** Since privatisation in 1995, water delivery in MIL has halved from an average annual use of approximately 1,200GL in the 1990's to 600GL today. Since the introduction of the Plan, our network has experienced a significant total production decline in local industries (such as dairy and rice). However, the company's \$1 billion of water delivery infrastructure has not significantly reduced in this time frame.
2. **More effective consultation and engagement:** For MIL and our farmers to be confident that the Plan is fair, equitable and managed soundly, we need clear, consistent policy and strong leadership from governments and agencies. This can only be achieved through well-designed and effective consultation which puts communities at the heart of decision making, is targeted and aligns very specifically to the adjustments that need to occur for farmers to meet water recovery targets. It is critical that government works hand-in-glove with farmers, communities and organisations such as MIL to drive a shared and prosperous vision for the future, where the environment, industry and community is able to thrive and flourish.
3. **Better institutional arrangements:** The 'requirement for administration' duplication between States and the Commonwealth in the delivery of a range of Plan initiatives not only creates confusion, but leads to significant project and program inefficiency. The current arrangements to deliver supply and efficiency measures have proved slow to prepare and have often been ineffective. The implementation of the Plan should embrace innovative approaches to achieve stated targets, avoiding a rush to water recovery through market buybacks.
4. **Adaptation:** For Murray Irrigation to be able to provide a sustainable service and avoid loss of customers and costly stranded assets, farmers must be equipped to adapt at a rate so they can thrive. We strongly believe that empowering our farmers to become part of the water recovery offset projects should not be abandoned in favour of water purchasing which, even voluntary, will decimate Southern Basin communities. We are concerned that current mechanisms do not recognise the full cost to local economies, the local community and particularly the threat to the survival of remaining irrigators dependent on shared infrastructure.

⁴ For a range of climate, pandemic and project cost related reasons. Importantly, they have also suffered as a result of being very poorly communicated and managed through multiple expensive delivery partners.

5. **Defining successful water recovery:** There is a genuine need to recognise and work with communities, and regional organisations to deliver innovation through a win-win philosophy, and a focus on initiatives that not only preserve regional communities but improve value for money regarding government investment. Despite the issues related to project delivery, the SDLAM initiative goes a long way in recognising that delivering projects that provide measurable environmental benefit is more important than a simple metric of megalitres held in an environmental watering account.
6. **SDLAM timeline:** We strongly encourage the MDBA to review the June 2024 timeline to enable an extension to the timetable for the delivery of SDLAM projects with a renewed program of works, and a streamlined delivery model.
7. **Adverse impacts of water buybacks:** The recognition of the adverse impacts of direct buybacks initiatives, despite the obvious appeal of a low-cost, rapid roll-out water recovery model, would go far with regional communities. There is a compelling case for investment in a properly funded independent assessment of the economic cost of water-buybacks on agri-business reliant communities across the MDB. This would provide governments with a quantifiable understanding of how moving water out of the agricultural sector as a means to achieving water recovery for the environment is impacting the prosperity of MDB communities.
8. **A project meeting SDLAM principles:** The Murray Reconnected Floodplains is a project that utilises MIL's supply network to deliver targeted environmental water into creeks, rivers and on-farm wetlands. Around 200GL of environmental water can be used to achieve these outcomes.
9. **A project meeting 450 program principles:** MIL's System Optimisation project identified as part of the Barmah-Millewa Feasibility study can also enable around 400GL of MDBA river operations water to achieve environmental outcomes in riparian systems and water delivery security to the lower lakes. This project meets principles under the 450 Program and MIL would welcome this as a 'water offset' under this program.
10. **Other Plan ideas:** Further ideas that meet SDLAM and 450GL program principles can be found on MIL's website "Ideas to Deliver the Murray-Darling Basin Plan" by clicking the following link: <https://www.murrayirrigation.com.au/about#Submissions>
11. **Buybacks threaten environmental projects:** The threat of further buybacks, and the divisiveness it creates within communities and between neighbours, will undermine opportunities to work together to deliver real results, for example the Murray Reconnected Floodplains project.
12. **An oversight body:** The current processes around supply and efficiency measures are inefficient. The implementation of The Plan should embrace innovative and approaches to achieve stated targets. This can be achieved through the establishment of a body that can consider options and recommend investments to the relevant Department and Minister over time in line with water recovery program guidance.
13. **The 2026 Review:** The Plan itself must enable a move from a blunt tool to reset the balance of resource use in the MDB to a legislation that encourages holistic and targeted natural resource management at various scales. For MIL and our farmers to be confident that the Plan is equitable and managed soundly, we need to be clear on how evaluation outcomes are used to develop policy options for the 2026 Review.
14. **Climate Change and the allocation framework:** The Plan has been developed on the basis of historic water availability. The allocation models adopted by the Australian states (to cope with wet and dry periods) during the last century have proven to be very suitable for adapting to a changing climate.
15. **Engaging with Aboriginal people:** MIL supports the continued evolution of best practice and an inclusive approach for all aspects of water management with Aboriginal people. Governments should be aware of the potential for duplication and consultation confusion for all stakeholders.

There is a lot of opportunity for collaboration and capacity building with completing on-ground water recovery offset projects and ongoing connection to country with First Nations people.

16. **Basin science:** MIL is confident that the science to measure outcomes and effectiveness from the Murray Reconnected Floodplains project will be very positive and lead to continual improvements in how to best deliver environmental water. A number of pilot environmental releases in the Tuppal and Cockran creeks have already delivered proven environmental benefits.
17. **Cost effective infrastructure:** MIL wants to reset this delivery model and offer project delivery services, given our experience in delivering state government programs. Water buybacks are often pursued by interest groups to offer even better value when, in fact, really good works with real outcomes for the Riverine environment could be delivered for a lower cost and, in the longer term, deliver much better value for the environment and community.

3 About Murray Irrigation Limited

Murray Irrigation Limited (MIL) operates Australia’s largest private water supply network in the Southern Riverina of NSW. We play a critical role in the delivery of water within the Murray-Darling system. We deliver water to a region covering 724,000Ha of predominately food producing⁵ family farms in the Southern Riverina. The company, established in 1995, is an Australian unlisted public company limited by shares and is constitutionally not-for-profit. Farmers are the shareholders and include more than 1,300 family-farm businesses. The Board consists of seven members: five being member directors and two independents. The gross value of all agricultural production for the Murray Valley is more than \$1.5B annually. Irrigated agriculture makes a significant contribution to this total.

MIL is licensed by the NSW Government and manages mostly general security water entitlements, along with smaller volumes of conveyance, high security, and town entitlements.

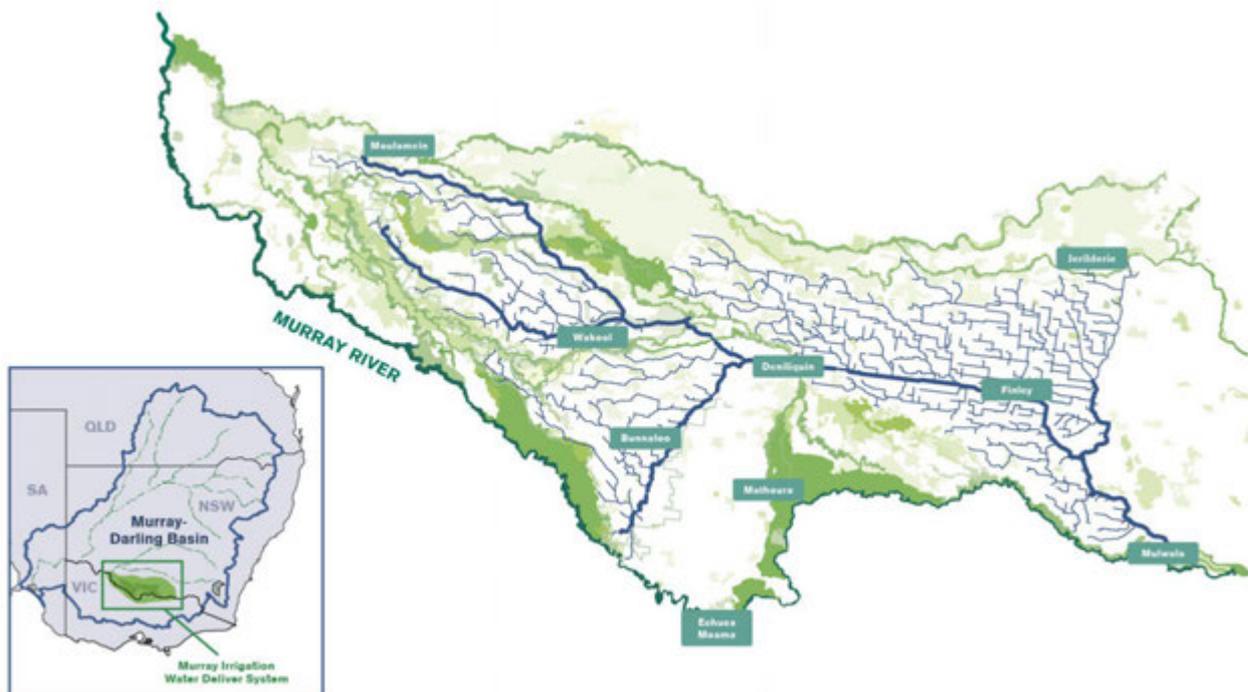


Figure 1. Murray Irrigation Limited water delivery network in the Southern Murray Darling Basin.

MIL has nearly 800,000 general security water entitlements. This represents approximately 50 per cent of all NSW Murray River general security water entitlements.

Since privatisation⁶, MIL's average water delivery has halved from an average annual use of approximately 1,200GL in the 1990s to 600GL today. Since the introduction of the MDBP, our network has experienced a significant total production decline in local industries (such as dairy and rice). However, the company’s \$1 billion of water delivery infrastructure has not significantly reduced in this time frame. We continuously strive

⁵ Including irrigated cereal, maize, dairy, pasture, hay-crops, rice and cotton farming.

⁶ In 1995, control and operation of the irrigation system was handed over to the irrigators it served, through the formation of the privatised company Murray Irrigation Limited.

to operate more efficiently and more collaboratively, to ensure the sustainable future of water delivery for food production, for our communities and our environment (Figure 2).

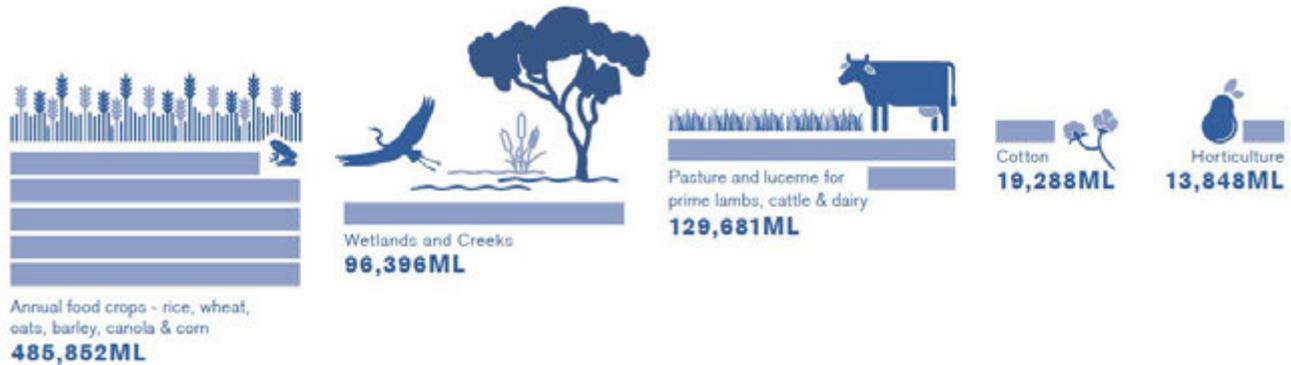


Figure 2. Water use from MIL's network 2021/22 season

With support from the Commonwealth Government, MIL recently modernised our water supply network, investing \$230M to enable irrigation control structures and farm outlets to be operated remotely. This means that we can deliver water more accurately and in a responsive manner – providing an excellent and efficient water delivery service to our customers. This system modernisation is also a very important factor demonstrating how we can support the delivery of environmental water from and within our network.

MIL is committed to the long-term sustainability of our operations and the communities that depend on us. Achieving the balance between environmental responsibility and growing agricultural production is at the core of our business model. Importantly, we have developed strong collaborative relationships not only with our communities but also with State and Commonwealth environmental water managers and we recognise the shared benefits of creating a future operational environment, for both the local environment and for our farmers, that is much more resilient to the impacts of a changing climate.

Environmental values within our network

'The Murray–Darling Basin Plan was developed to manage the Basin as a whole connected system. The aim of the Murray–Darling Basin Plan is to bring the Basin back to a healthier and sustainable level, while continuing to support farming and other industries for the benefit of the Australian community'⁷



Figure 3. Edward River NSW

MIL's irrigation network surrounds and bypasses hundreds of small and large wetlands throughout our 724,000Ha operating area. We have the capacity to redirect water from the Murray River into a range of creeks, rivers and streams throughout the region via our network of 70 escape (or return-flow) structures. Importantly, MIL's operating area is located adjacent to the northern boundary of the Barmah Forest and the Perricoota Forest and on the southern side of the Wanganella wetlands.

There is a very extensive network of permanent and ephemeral water bodies throughout MIL's area of operations. These water bodies provide very real opportunities for environmental enhancement through the utilisation of strategic releases of water from MIL's supply network. The concept of strategic environmental watering that is focused on optimising the use of water already recovered can be applied to all parts of the MDB where irrigation infrastructure exists and is able to supply wetlands. The collective benefit of hundreds of small projects can equate to quite significant environmental water recovery offsets and more effective use of otherwise depreciating infrastructure.

⁷ <https://www.mdba.gov.au/water-management/basin-plan>

MIL's canal network supports environmental outcomes by providing:

- Strategic delivery of environmental water to creeks in times of drought, as there is often no other way of getting water to important refuge water holes that contain native fish.
- Strategic delivery of environmental water in times of flood, as the supply network keeps native fish alive by breathing the oxygenated water behind the escapes while surrounding flood water is hypoxic.
- An effective and low-cost native fish redistribution system when delivering water to creeks and rivers.

Changing attitudes towards Environmental Watering

Since the commencement of the Plan, many of MIL's customers have developed very different and more positive views in regard to successful watering of wetlands than was the case even 15 years ago. There is overwhelming support for the use of the company's operational staff working with environmental agencies to utilise the network to deliver environmental water into the multiple creeks and streams that transect their properties to create healthier creeks and the growing number of significant wetlands located on private property. e.g. the planned wetting and drying of the large network of Murray and Edwards anabranch creeks and streams⁸.

4 Remarks on the effectiveness of the current Murray-Darling Basin Plan

It is MIL's view that the Plan to date has mostly been detrimental to the economic viability of the company, our irrigator customers and the local communities who depend on both. The Plan can do much better by helping impacted communities structurally adjust from previous rounds of water recovery whilst focussing on achieving environmental outcomes in collaboration with communities rather than trying to recover more productive water. Even though our communities and business suffered in the wake of past water recovery⁹, we are committed to finding a workable balance to successfully delivering the Plan.

Our supply system is uniquely placed to deliver both targeted environmental water to a number of environmental assets and, with coordinated management, has potential to supply a significant annual volume of operational water to downstream users that will contribute to the eventual successful delivery of the basin plan. However, in order to assess and realise these opportunities, a mechanism to measure environmental impact is required.

Since the company's privatisation from a government owned entity in 1995, government water policy reform and several crippling droughts (2002-04, 2007-10, 2017-20) have had a profound impact on the viability of our company and our customers. As mentioned, water delivery volumes have reduced from an average annual delivery of around 1,200GL in the 90s to a current average of less than 600GL p.a. against an infrastructure base that remains valued at approximately \$1 billion.

⁸ Further outlined in our response to Key Question 2 and Figure 4

⁹ Final Report: Independent assessment of social and economic conditions in the Murray-Darling Basin.

In the NSW Murray Valley, almost double the relative quantity of the mandated Plan savings have been recovered through buyback, in comparison to the nearby Murrumbidgee Valley where infrastructure and related land purchase initiatives (most notably in the Lowbidgee) have been extensively utilised¹⁰.

Commentary on a market-based approach

In preparing this submission, despite the high level of concern regarding a reversion to direct buyback¹¹, we are conscious of the need to provide positive and constructive advice with an emphasis upon building a future that delivers improved and sustainable environmental outcomes.

However, calls by some for the Federal Government to simply “use the market” to secure more water for the environment, is a concerning issue for MIL and our communities. In this regard (in the context of what needs to change to meet water recovery targets), we believe that a return to market-based water recovery represents a step backwards. This view particularly takes into account the negative sentiment of irrigators towards water buybacks and the collaboration that is required to deliver many elements of the Plan.

The rapid introduction of buybacks would likely lead to significant and adverse impacts for those not participating, a possible collapse in some irrigation-dependent industries, and an increase in the number of stranded assets. In support of recommending a future suite of policies that excludes the direct purchase of entitlements for water recovery, we make the following comments.

All Australians who have spent time in, or have even just transited through, inland rural Australia would have seen for themselves how townships underpinned by a sound economic base thrive and prosper, whilst others decline. In communities where the economic base is primarily agriculture, irrigation substantially improves productivity and develops a range of local related and significant secondary and even tertiary industries. This results in increased local employment, not just through the value of the crops but also in the form of transport, refrigerated storage, product-packing and processing industries. This, in turn, attracts trades, service industries and significant (population-based) public sector opportunities.

So, when an area loses its water entitlements, the customer bases of organisations such as MIL declines, and the broader community loses business, people and services. With the loss of people, comes the loss of the municipal rating base. There is also decline in those elements that foster a sense of community and give a region a positive and attractive identity: public buildings, tourist accommodation, schools, churches and sporting clubs. The loss of water can lead to rapid economic and social decline that is beyond the capacity of the agriculture, commodity processors and the community to successfully adapt to. In the longer term, other adverse outcomes will be apparent. The loss of incomes and opportunities foster both short and long term negative social outcomes.

¹⁰ Murrumbidgee direct buyback: 124GL of LTAAY of 2256GL (~5.5%) of combined high security and general security entitlements on issue, and the Murray direct buyback of 189GL of LTAAY of 1868GL (~10%) of combined high security and general security.

(Surface water recovery under the Basin Plan as of 31 May 2023) Source: NSW water recovery plans and water sharing plans (regulated Murray and Murrumbidgee).

¹¹ Murray Irrigation understands that the planned water recovery has slowed and that as a consequence, there has been championing by some interest groups to enhance the water available for the environment through the Commonwealth Environmental Water Holder (CEWH) returning to the direct market (tender) model to secure additional entitlements from willing sellers.

In addition to the potential rapid, adverse and largely irreversible impacts of buybacks on existing communities, it is also worth noting the potential opportunity costs of the related rural decline. In the post epidemic world, communication technology has transformed the workforce, providing many office-based workers with the option of working remotely from their employer's office. With substantially lower housing costs, rural townships with existing infrastructure have the potential to reverse rural decline. However, attracting 'sea and tree changers' is unlikely unless a destination is attractive. Economic growth, diversity and resilience requires optimism. However, a rural community fighting for survival against an eroding economic base is unlikely to nurture new industries, or attract the inland tree changer.

MIL holds the view that a purely market-based approach to water recovery is a blunt approach that will undermine the high level of cooperation needed to deliver water for the environment, and impact irrigators not directly involved in the transaction. Insights into how we believe these externalities impact irrigators, communities and indeed our broader state or national community are outlined below.

5 Response to Productivity Commission questions

Key Question 1.

What needs to change to ensure water recovery targets are met and that supply and efficiency measures are delivered? The Productivity Commission is interested in what needs to be done to get these measures on track and ensure that water recovery is cost effective and that programs meet their objectives.

MIL enjoys excellent working relationships with a number of State and Commonwealth environmental agencies. These relationships have developed over the last decade and have led to a number of positive outcomes in dealing with on-the-ground environmental emergencies (e.g. hypoxic blackwater events) and the delivery of successful environmental watering regimes for a number of creeks and wetlands in our area of operations. We are keen to continue to build on these initiatives.

Furthermore, based on MIL's direct involvement in the delivery of the Plan since its commencement, we have outlined the following areas that we believe will strengthen implementation of Plan moving forward.

Genuine landholder support

There is a need to develop greater landholder understanding and support for the entire Plan. If landholders feel alienated by the Plan, they are unlikely to enrol in an on-farm initiative for environmental watering. It is important to note that a large proportion of the environmental assets that will benefit from strategic watering within the MDB (particularly the Mid-Murray) are on private land. MIL hopes that initiatives that deliver environmental benefit and reduce the need for direct buybacks (SDLAM, and similar initiatives) are well supported. Additionally, the recognition of the adverse impacts of buybacks, despite the obvious appeal of a low-cost, rapid roll-out water-recovery model, would go far with regional communities.

Delivery model review

A review of the current delivery model is required to implement a successful Plan, including the complex Constraints Management Strategy. This should include the development of a more cost and time-effective project delivery partnership model with the MDB-States and with the entities delivering projects. In this regard, MIL believes:

- The role of Basin Officials should be clearly understood and better supported by state governments. Commitments made by states to deliver works in exchange for Plan funding should be based on commercial deliverables, with appropriate overheads applied.
- State agencies need to provide consistent support (through the same people, living locally if possible) to meet their commitments to communicate, design and deliver projects.
- Alternate partnership models to deliver works directly with irrigation corporations should be sought where possible.

Innovation and a win-win philosophy

MIL recognises that there remains much to do to build a healthy river and floodplain environment. In this regard, we offer our considerations for making further inroads into these challenges. With an innovative and collaborative approach, there is a real and clear opportunity to successfully pursue a range of non-market-based solutions.

There is a genuine need to recognise and work with communities and regional organisations to deliver innovation through a win-win philosophy, and a focus on initiatives that not only preserve regional communities but improve value for money regarding government investment. Optimum outcomes are rarely achieved with quick fix solutions. But, if all stakeholders are committed in a spirit of collaboration and cooperation to pursuing win-win solutions and avoiding an adversarial path, then solutions that provide benefits for all participants will be found.

Clearly there have been some shortcomings in the delivery of the target 605 GL SDLAM program. However, this program has demonstrated a willingness by governments to marry the imperative to enhance environmental outcomes throughout the river system with the legitimate concerns of communities on the adverse impacts of direct market-based water recovery.

In recognition of the range of further opportunities that are now apparent, combined with a more effective model for delivering a range of complementary projects (including several of the current SDLAM initiatives, which must be targeted through an extensive 'reset' with delivery partners), we believe an extended timeline for the delivery of SDLAM projects is not only justified, but has the potential to deliver a better result for irrigators and the MDB environment.

Summary statement: To ensure targets are met, there is a genuine need to recognise and work with communities and regional organisations to deliver innovation through a win-win philosophy, and to focus on initiatives that not only preserve regional communities but improve value for money regarding

government investment. Additionally, the recognition of the adverse impacts of direct buybacks initiatives, despite the obvious appeal of a low-cost, rapid roll-out water-recovery model, would go far with regional communities.

A reset of the exiting SDLAM initiatives, in particular a redesign of the complex Constraints Management Strategy, the flexibility for inclusion of further projects and complementary measures to be considered as part of SDLAM reconciliation are required. The development of a more cost and time-effective project delivery partnership model with the MDB-States and with the entities delivering projects should also occur.

Key Question 2.

**Are the current arrangements for implementing the Murray-Darling Basin Plan operating effectively?
How could the arrangements be improved?**

MIL offers the following advice on where we believe implementation could be improved with respect to:

- Improved partnerships, delivering genuine value-for-money.
- Opportunities to overcome environmental water delivery constraints.
- Extension of the June 2024 completion deadline is now essential.

Our thoughts in relation to the above are as follows:

Improved partnerships, delivering genuine value-for-money

MIL has been an important partner contributing to the implementation of the Plan in NSW. For more than 15 years, MIL has worked with the Commonwealth and NSW Government Environmental Agencies to strategically deliver water, sometimes in very large annual volumes, to achieve environmental benefits.

Our region resides on the northern boundary of the Barmah, Gunbower and Perricoota Forests and we lie to the south of the Wanganella wetlands. Combined with hundreds of smaller wetlands on our shareholders' farms and the myriad of creeks and streams running through our region, the large flooded Redgum forests and wetlands are an integral part of our community's landscape. We have observed that over the period that the Plan has developed, the attitude of many of MIL's customers has shifted substantially to supporting the watering of not only wetlands on private land, but also to providing environmental flows based on environmental triggers, to the region's multiple creeks and streams that transect their properties.

We see significant opportunity to capitalise on this goodwill among the landowners within the region and invest further in the environment of the Riverina communities that have paid a high price through the water recovery processes applied to date. Over time it will be possible to build upon the environmental capital that can provide opportunities for the regional community, particularly the Traditional Owners, and to even establish significant economic opportunities from healthy and resilient environmental assets. The infrastructure costs of a well-coordinated initiative to enhance thousands of hectares of wetlands and

riparian zones along the mid Murray creeks and streams is relatively small, as MIL has a vast channel network and around 70 escape structures capable of delivering more than 4,000ML/day from the Murray River into the large network of Murray River and Edwards River anabranch creeks and streams that traverse our 724,000ha operating area. Already significant benefits are derived through the strategic use of these assets.

In short, MIL sees itself as not just delivering a modern and responsive service to irrigators, but increasingly as a key partner in the delivery of water supply and other services to the regional and downstream environment, which are vital to strengthening our region and the MDB. The Plan must change in many ways to achieve its aims. One important change will be to actively encourage partnerships that deliver the best outcomes, that is, those where local stakeholders are able to provide local contributions, not just to program delivery and ongoing stewardship, but also in assisting with the development of innovative and practical solutions.

Overcoming delivery constraints

Since the early days of water recovery, governments and communities have realised that, for the southern connected basin, a successful environmental watering strategy requires much more than simply access to more water. Constraints on water delivery to achieve effective environmental outcomes throughout the connected Basin have in many ways been a greater challenge than water recovery. This was the impetus for development of the Constraints Management Strategy (CMS). However, to date, this strategy has been unsuccessfully implemented. It has not been sufficiently effective to enable the planned optimal environmental watering throughout much of the Southern MDB. The CMS requires rethinking, particularly regarding the development of a shared understanding of the benefits. The CMS delivery model, which is really yet to commence in a meaningful way, needs to be delivered by state partners committed to long term and meaningful engagement with landowners, and needs to be substantially redesigned.

As the constraints arise from the landscape, so too must the solutions proposed. MIL is a potential partner who understands both the difficulties and opportunities of moving water through the landscape to achieve the environmental watering objectives, whilst minimising the unwanted externalities.

Concepts that can be tested with current pilot projects are an important part of enabling the Plan reset. A topical example is the Murray Reconnected Floodplains (MRF) project (outlined below in Figure 4) and the Barmah-Millewa Feasibility Study optimisation project. These pilots operate within the MIL region, and have built on earlier work, notably the water now utilised to provide flows into the Great Anabranch, in the Lower Darling¹².

Murray Reconnected Floodplains (MRF) project

With funding support from the Commonwealth, the MRF project is utilising MIL's supply network to deliver targeted environmental water into creeks, rivers and on-farm wetlands. As well as achieving environmental outcomes, a number of these riparian systems can also play an important role in reducing water delivery pressure on the Barmah-Millewa River reach, by utilising the MIL supply network to release water into (for

¹² The Great Anabranch water savings project, delivered as part of 'The Living Murray' and operating since 2005.

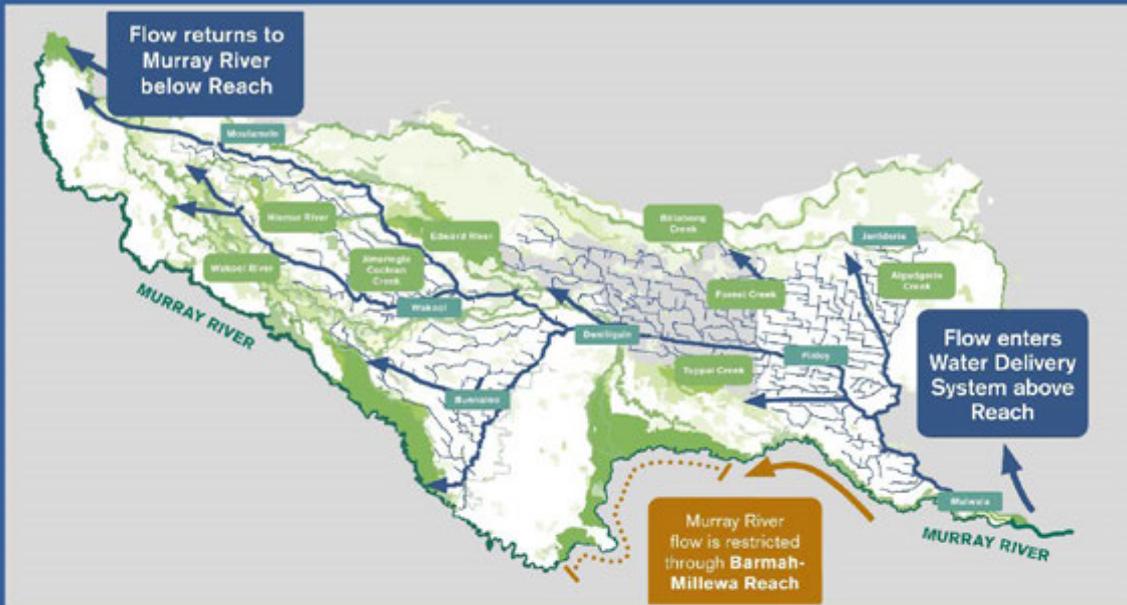
example) the Jimaringle and Cockran creeks (thus routing water around the severely constrained Yarrawonga – Wakool junction back through the Wakool River into the Murray at Wakool Junction).

The underlying thinking is that if the initiative is automated and scaled upwards, the myriad of creeks and streams throughout the southern Riverina would provide an effective arterial network through which both range of environmental benefits can be delivered and a significant bypass capacity for the current choke could also be achieved. This would meet a significant proportion of unmet downstream regulated flow and environmental flow demands and provide an effective means of overcoming the choke. This initiative, if fully developed, has the potential to quite quickly and efficiently increase the delivery of water to meet peak agricultural demands downstream, and to create the intended significant environmental benefit to the riverine environment - particularly through the network of currently under-utilised, and often dry anabranch creeks and streams throughout the mid-Murray.

If the success of the current pilots can be duplicated to the multiple streams that exist, this could be replicated more broadly at scale across multiple creeks and streams, recognising the significant advantages of utilising mainly MIL's existing delivery infrastructure i.e. negating the need for new large structures (with the inherent long lead times, high costs to construct and complex approval processes). If successful at the suggested larger scale, opportunities for similar initiatives to utilise existing anabranches and natural carriers to enhance the environments of the floodplains could also be considered in the Murrumbidgee Valley, the Victorian Goulburn, and Victorian Murray context.

Murray Reconnected Flood Plains

Rehabilitating and connecting thousands of kilometres of riparian systems and wetlands throughout the Murray floodplain landscape, targeting at-risk ecosystems.



With funding support from the Commonwealth, the Murray Reconnected Floodplains project is utilising the Murray Irrigation supply network to deliver targeted environmental water into creeks, rivers and on-farm wetlands. As well as achieving environmental outcomes, a number of these riparian systems can also play an important role in reducing water delivery pressure on the Barmah-Millewa Reach. The Intelligent accounting of different water types enables the delivery of maximum environmental outcomes. Environmental water can be used for the 'loss' component, while consumptive water can be used for the 'flow' component that connects back to the Murray River for downstream use.

This initiative meets environmental outcome principles under two Basin Plan programs.

- The first is the **SDLAM program** that enables the targeted delivery of up to 200GL of environmental water.
- The second is the **450 program** where an additional 400GL of MDBA River Operations water can also achieve additional environmental outcomes in these riparian systems and provide water delivery security to the lower lakes.

A government willing to partner and invest up to \$200M of funds in our communities to achieve these environmental outcomes could recognise this as **water recovery offsets under both programs** along with the many other socio-economic benefits that would then follow.

Figure 4. Outline of the Murray Reconnected Floodplains project.

To achieve this vision of rolling out similar initiatives across the MDB, MIL plans to develop a Business Case to outline resourcing required to fully realise the aims of this project. If successful, the return on investment

could be substantial in terms of delivering significant further SDL offsets, (assuming the initiatives are accredited) and contributing to a redesign of the suite of existing SDLAM projects, particularly those related to Constraints Management Strategies (CMS).

MIL notes that, although this type of initiative is not new (and has been the subject of several studies), we believe it is appropriate for the NSW and Commonwealth Governments to consider working with MIL to develop the full potential of this initiative. This is because:

1. **Existing infrastructure:** It utilises a large network of existing infrastructure that is under-utilised. This infrastructure is able to deliver precisely measured and targeted water delivery to environmental sites, therefore maximising environmental outcomes with that water.
2. **Environmental and Operational benefits:** The myriad of creeks and streams that will carry this water enable both significant environmental outcomes along with an ability to reduce pressure on the Barmah-Millewa Reach. Both environmental and consumptive water can be delivered through the thoughtful combination of wetting-up of these creek and river systems to achieve environmental benefit, and then transfer regulated flows on top of already wetted-up streams¹³.
3. **Landholder support:** There is support from landholders to water creeks and wetlands using MIL's supply system. The supply system not only enables improved aesthetic and environmental values on a property, but also gives the landholder comfort knowing there is precise control of the water flows. In the event of a large rain event or possible flooding, the flows can be quickly reduced or turned off. This is a point of difference compared to sending large volumes of water down a river over many hundreds of kilometres.
4. **Capacity Building:** Investing in on-ground works over the longer term should also be closely interlinked with opportunities to develop programs with close consultation with First Nations groups. Along with jobs to implement the on-ground works, a number of these works will benefit from 'people out on country' to monitor and measure outcomes from watering initiatives that benefit both the environment and cultural significance of sites. A good example is collaboration with the Edward Kolety Werkul River Rangers program.

With the company's experience in delivering water products, water policy and environmental initiatives, MIL has identified other concepts that could be expanded throughout the MDB to achieve far greater outcomes. A document outlining these concepts can be found on the company's submission website by clicking the following link: [Ideas to Deliver the Murray Darling Basin Plan](#) .

¹³ Barmah-Millewa Feasibility Study report (Alluvium), December 2022

SDLAM Projects

It is MIL's view that, with the right project development and delivery time, a genuine commitment from delivery partners and an improved project governance model, the range of both existing and new SDLAM projects will contribute significantly to the long-term success and sustainability of the Plan.

MIL has observed that some projects have faltered because of the escalating project costs, adverse climatic conditions (severe droughts and floods), Covid-19 related delays and the lack of community buy-in. We also understand the dependency of the success of many environmental watering initiatives on successfully negotiating and delivering the Constraints Management Strategy (CMS).

We are concerned that, with the threat of further buybacks, the divisiveness observed within communities and between neighbours, will undermine the opportunity to recognise opportunities and to work together to deliver real results, for example the Murray Reconnected Floodplains project. For the remainder of the Plan to be successfully delivered, with much needed support from those living and working in the MDB, a realistic and extended timetable for a broader range of SDLAM project delivery needs to be established, agreed to, and delivered.

The initiatives developed in the original suite of SDLAM projects have proved difficult to deliver in full. For success in delivery of these initiatives and a range of others, including MIL's proposal, state government teams need to be genuinely committed in the long term, communities need to be well-engaged, and commercially sensible contracting models utilised. MIL is keen to demonstrate our capability as part of the solution.

Extending the deadline

The effectiveness of implementing the Plan has been impacted by a number of factors. The original deadline of June 2024 was unable to foresee the extreme climate variability (particularly periods of extended drought) or the delays on project delivery as a result of Covid-19.

The architects of the original timeline did not recognise that successful change management takes more time than has been allowed.

In addition, commitments by states to partnerships, which are a cornerstone of successful Plan delivery, have not been fully realised. This is despite significant funds being invested in State agencies to deliver the delivery management and the required outcomes.

Summary statement: As a result of committing to more successful engagement, the deadlines for SDLAM delivery should not be so rigid and threatening, and the embedded threat of 'reverting to buyback' relating to the current 30 June 2024, deadline should be sensibly revised.

Key Question 3

Have the governance and institutional arrangements for the Plan – including the arrangements for compliance and monitoring, evaluation and reporting – proved effective? What changes would you recommend?

The Plan has the MDBA playing a key role in ensuring compliance with the Plan across range of areas, including:

1. Compliance with SDLAM projects and Water Resource Plans (WRPs) - which comes into full effect once WRPs are accredited.
2. Compliance in water trading and markets.
3. Reporting by States and parties such as the Commonwealth Environmental Water Holder (CEWH) and the Department to report progress against outcomes.

MDBA is responsible for evaluating the outcomes of the Plan. This work is supported by reports and other sources of information it may commission. In 2020, the MDBA also released its five-year monitoring and evaluation report. Since the Productivity Commission's 2018 report, compliance functions have been transferred from the MDBA to the newly established Inspector-General of Water Compliance. We also note that the development and accreditation of WRPs are well behind schedule.

In the compliance area, we note that recommendations from the Productivity Commission's 2018 review have not been fully adopted. The most pertinent recommendations to MIL are:

- The Department of Agriculture and Water Resources (DAWR) should appoint an Independent Advisory Panel on supply measures (independent panel) to provide it with expert advice to inform a gateway review process that assesses new projects and determines whether supply measures proceed to implementation.
- The MDB Ministerial Council must set a much clearer tone of firm commitment to the MDB itself, with unmistakable collective direction for delivering on that commitment. The Basin Officials Committee BOC should take responsibility for leading the implementation of the Plan, putting substance to Governments' Basin-wide direction-setting.
- The Productivity Commission also identified that a structured pathway to deliver efficiency measures is required.

We would like to comment on compliance and monitoring, and then evaluation and reporting in turn.

Institutional Arrangements and Compliance

Observations since the Productivity Commission's 2018 review

The improvement recommended by the Productivity Commission in 2018 has not been made. We would argue that there has been little to no proactive and dynamic program delivery in this area to the long-term detriment of both the environment and MDB communities.

Regarding implementing the Plan, MIL would encourage the Productivity Commission to consider appointing an Independent Panel to oversee Plan projects and ensure they are delivered on time, efficiently and flexibly. This type of approach can result in an arrangement that can consider all options to deliver on Plan targets, minimise costs to communities while ensuring accountability.

We also note in NSW that WRPs are not accredited. We have noted that the attention and resources devoted to these plans is not commensurate to the importance of water management activities required on the ground. The Productivity Commission should examine ways that these regulatory requirements can be streamlined and targeted.

The key role for the MDBA is to assess SDLAM compliance via reporting from States. We believe that the core compliance roles under the Plan have been carried out effectively. In some cases, arrangements seem to have been established to resolve issues that should be of a project nature incurring ongoing costs. The BOC should play a role, informed by the Productivity Commission that arrangements are effective, targeted and the level of resourcing is efficient. Arrangements in the areas of compliance and water markets should be fit for purpose.

Summary statement: Under the current water pricing arrangements, MIL is mindful that a large portion of the costs of water management and regulations are borne by water users. The potential for duplication between States and the Commonwealth not only creates confusion but can lead to inefficiency.

The current processes around supply and efficiency measures are inefficient. The implementation of the Plan should embrace innovative and approaches to achieve stated targets. This can be achieved through the establishment of a body that can consider options and recommend investments to the related Department and Minister over time in line with water recovery program guidance.

Evaluation and Reporting

In 2020, significant progress against key elements of the Plan has been made since it came into effect in 2012. The evaluation's major findings included:

- The Plan is having a significant and positive impact on the MDB's environment. This has been crucial for sustaining water-dependent ecosystems during the recent drought, but is unlikely to be sufficient to achieve long-term outcomes unless further implementation and other actions are fast-tracked.
- The Plan has protected flow regimes across much of the southern Basin, including base and fresh flows in some rivers. Positive ecological responses have resulted from water for the environment.
- The Plan has enabled delivery of water for the environment to support the Coorong, Lower Lakes and Murray Mouth ecosystems through the drought, substantially avoiding the environmental degradation that occurred during the Millennium drought.
- The Plan is unable to effectively support many floodplain and wetland ecosystems until implementation of critical improved water infrastructure and river operating rules are in place.

In terms of socio-economic findings, amongst other comments, the evaluation found:

- The timing, location and volume of demand is changing, and this is affecting communities and water delivery across both the southern and northern Basin. In the southern Basin this has had flow-on impacts on communities, river operations and the environment.
- There is evidence to suggest that much of the past funding to support communities to adapt to water reform could have been better targeted, particularly for those smaller communities that have had more water recovered through direct buybacks or that did not receive on-farm irrigation upgrades.

The evaluation has pinpointed several priority areas for these efforts including:

- Implementing the Plan.
- Adapting to climate challenges and increasing resilience.
- Strengthening focus and support to enable social and economic outcomes.
- Establishing a clear and committed pathway for First Nations social and economic outcomes.
- Integrating water management with other activities to achieve environmental restoration.
- Advancing science and monitoring.

The Plan evaluation framework should be improved to define the specific questions that will be used to comprehensively evaluate the effectiveness of the Plan in achieving environmental, socio-economic and cultural outcomes at both a region and MDB scale. The MDBA has published a revised Basin Plan Evaluation Framework and associated Roadmap in 2022. The Basin Plan Roadmap to the 2026 Basin Plan Review was also released in 2023. We will consider the changes needed to ensure a sustainable and healthy MDB for the future and, following the review, we may recommend amendments to the Plan. It identifies the following areas for review:

- Climate change
- Sustainable water limits
- First Nations
- Regulatory Design.

We would argue that the Plan evaluation should be an open and transparent process that allows time for discussion of outcomes. We are concerned that the MDBA has flagged issues that it would like to change, and that the evaluation becomes a process for supporting these proposed changes.

We also note that the evaluation questions are not adequately defined to enable an open and transparent process of evaluation, particularly in areas that relate to potential changes in the Plan such as climate change and potential further changes in SDLAMs.

The Basin Evaluation itself should be a diagnostic tool to see what is working and what is not, given current arrangements. It is then a distinct process to identify options going forward to address either persistent or emerging issues. MIL would remind the Productivity Commission that the establishment of the Plan itself, while a significant reform, was based on trade-offs and last-minute changes that were not subject to a traditional open policy development process.

Summary statement: Decision-makers should be satisfied that significant changes are based on appropriate information to inform options. The Plan itself must enable a move from a blunt tool to reset the balance of resource use in the MDB to a legislation that encourages holistic and targeted natural resource management at various scales. For MIL and our farmers to be confident that the Plan is equitable and managed soundly, we need to be clear on how evaluation outcomes are used to develop policy options for the 2026 Review.

Key Question 4

How well is the Plan responding to a changing climate (a variable climate)? How should this be improved?

Water resource development commenced in the MDB some 170 years ago and, within decades, periods of drought led to the emergence of policy and regulations to share water in times of scarcity. Within the Plan, these sharing arrangements are articulated at a very high level through a prioritisation regime, the highest being an operating river (for its full length) and the meeting of flows to meet critical human needs, followed by now long held state-based priorities assigned to different categories of entitlement.

If climate change results in more climate variability; frequent or extended periods of scarcity or much wetter conditions, then the existing water allocation framework, which is designed to manage variable conditions, can be expected to provide a continued, robust basis upon which to share the available water resource. We encourage governments to consider how the resource is better shared with the view of supporting key food production and ecological services within the MDB during dry times, and how to make better use of opportunities of achieving greater environmental outcomes and food production during wetter periods.

Uncertainties surrounding the impact of droughts

However, there is a need to carefully consider whether the rules embedded within this framework (which were developed using an historic understanding of reliability) are appropriate if there is an increased frequency and duration of droughts. In the event of a repeat of the 2007-2010 drought, it is likely the current move to high value permanent plantings with a fixed annual water demand will not be sustainable for many of the developers.

Furthermore, in response to recent severe droughts, we are already seeing a range of behaviours leading to a reduction in overall water use (in almost all seasons) relative to modelled expectations. Most notably, the use of carryover to enhance water security in a future season and a reduction in annual irrigation crop production. This risk is an important issue for communities supplied by MIL because, in years of scarcity, the current hierarchy of priorities place high security water and conveyance above general security water, which is the mainstay of irrigated agriculture in the Southern Riverina. So, if current priorities are applied to a more variable and often drier future, under current sharing rules, NSW Murray General Security Entitlement holders will shoulder a disproportionate burden of direct climate change impacts compared to other users.

These inequities will also apply across township communities for which irrigated agriculture is the mainstay to the local economy. In other words, townships underpinned by irrigation allocations that are based upon General Security entitlements will bear a disproportionate burden of the indirect cost of climate change compared to local economies that are underpinned by an irrigation economy for the most part sustained by high security entitlements.

Review of the water allocation framework

In light of the above, we believe through the lens of potentially increased climate extremes, this five-year inquiry should highlight that we cannot be complacent and assume that the water sharing tools we have developed and successfully applied to date will be fit-for-purpose should we progress into an era of longer and more severe droughts and reduced reliability or conversely much wetter conditions.

It is timely to think through and engage on the implications of the likely drift towards reduced reliability of general and high security entitlements and, if appropriate, adapt the allocation framework to ensure water is shared equitably between categories of users and the communities whose fortunes rise and fall with their agricultural base. In considering whether climate change warrants a refinement to the water allocation framework some questions that could be considered include:

Under a more variable climate future, how does reliability change for:

- High security entitlement holders?
- General security entitlement holders?
- Given the probable range of changes in water resource availability under these drier scenarios, what are the implications for the relative differences in reliability between high security and general security entitlements?
- Given that the understanding of the relative value of high and general security entitlements have, for the most part, been based upon historical understanding of reliability, would there be mechanisms that could be applied to water sharing to preserve the relative difference in reliability between the two entitlement products?
- In the event of higher variability leading to periods of high river flows (albeit less often) can allocation polices adapt to enable those most impacted to utilise more water in years of high flows?

Summary statement: The Plan has been developed on the basis of historic water availability. The allocation models adopted by the Australian states (to cope with wet and dry periods) during the last century have proven to be very suitable for adapting to a changing climate.

As part of a future reset of the Plan, any proposed changes to water sharing arrangements must fully recognise and acknowledge 'winners and losers' and provide adaptive mechanisms to enable a fair and equitable outcome. MIL would support a review of the water allocation framework.

Key Question 5

How well is the Plan addressing the interests of Aboriginal people?

The Plan seeks to ensure Aboriginal people can participate in water resource management – including water resource planning, environmental management, knowledge building and evaluation. MIL does not have a holistic view of the effectiveness of the Plan in achieving its stated objectives regarding Aboriginal involvement in water management. However, we do expect that the Productivity Commission will talk directly to Aboriginal people, and our comments are provided in a general nature and do not speak for Aboriginal groups in our region.

When considering Indigenous perspectives, the challenges for delivery partners who implement the Plan across a range of water management activities is that the degree of consultation, seemingly without clear purpose, can be a barrier to effective engagement. Namely, consultation around issues and processes occur at a range of scales from National, Basin, State through to a specific waterway or wetland, and pertinent issues are often very local.

MIL acknowledges the importance of water to Indigenous communities in the MDB and continues to encourage involvement in local landscape management and environmental watering. Through the National Irrigators Council, MIL supports the Economic Participation of Indigenous Communities Cooperative Research Centre (EPIC CRC) bid and will continue to work with stakeholders to support the establishment of the CRC.

MIL would encourage:

1. **Targeted Funding:** The Commonwealth and relevant agencies to consider further targeted investment to support aspects of the Plan that address capacity building of First Nations people and their respective communities.
2. **Appropriate and Transparent Consultation at a local level:** Approaches in developing partnerships at a local level can be improved. We acknowledge in our region that the State Government and CEWH are making significant steps to engage with local Indigenous communities. This is a resource intensive process for all parties, but it is essential that this is recognised, effort is prioritised, and collaboration becomes business as usual.

We would like to highlight that, at a local level, opportunities are emerging as environmental watering and landscape management evolves.

Murray Irrigation Reconciliation Action Plan (MILRAP)

MIL supports engagement and dialogue with Aboriginal people and communities. To this end, our Board has supported in-principle the development of a Reconciliation Action Plan (RAP) where initial discussions have commenced. This RAP will be inclusive, considered and well thought through, ensuring our company supports and acknowledges the contributions of our First Nations communities across the MIL footprint.

The Indigenous River Rangers program

MIL has been actively working with communities of the Wamba Wamba Perrapa Perrapa Nations to collaborate on specific projects. The Indigenous River Rangers program is an initiative of the Commonwealth and seeks to support Indigenous people to combine traditional knowledge with conservation training to protect and manage their land, sea, and culture. In addition, MIL's Reconnected Floodplains project (see Key Question 2) has initiated collaboration and engagement with the local Indigenous River Rangers program, known as the Kolety-Werkul River Rangers.

Summary Statement: MIL supports the continued evolution of best practice and an inclusive approach for all aspects of water management with Aboriginal people. Governments should be aware of the potential for duplication and consultation confusion for all stakeholders.

Key Question 6

How well has community consultation and engagement been conducted? How can this be improved?

MIL has been extensively involved in consultation and engagement opportunities with the various government agencies and bodies operating in the southern Basin. We offer observations and feedback in the following areas to support more effective future consultation:

- Communication and engagement context
- Resource demands of ongoing consultation
- Consultation observations since the 2018 review and consultation on SDLAM community consultation and engagement design.

Communication and engagement context

Since the Productivity Commission's 2018 review, the community consultation and engagement context in our area of the MDB has been dominated by water reform, particularly around water buybacks, as well as hardship arising from drought, fire and the Covid-19 pandemic. Many of these issues have involved government-led consultation. There are also ongoing longer-term drivers such as new technology, commodity prices and movements in the Australian dollar which farmers are grappling with as they are asked to provide feedback, in addition to the demands of running a business.

We note that an outcome of the Productivity Commission's last review was the development of a centralised consultation planning and strategy within the MDBA, the establishment of new regional offices and the deployment of up to eight regional facilitators operating on-the-ground (Regional Engagement Officers or REOs). We are also aware the CEWH has in place approximately six Local Engagement Officers, known as

LEOs, and the Inspector-General of Water Compliance's (IGWC) office established a regional presence and is using new communications channels to discuss compliance and monitoring issues.

MIL has established some strong and productive relationships with key government and agency people. We have also enhanced our own ways of sharing information to collaborate with our customers about our business strategy. We are more proactive in promoting our diversifying focus to customers and stakeholders; specifically key investments and projects that align with principles of the Plan's environmental outcomes.

Resource demands of ongoing consultation

MIL has diligently embraced opportunities to provide feedback and to contribute to policy making and implementation consultation in a timely and accurate manner. We have participated in inquiries and reviews at the both State and Federal level for water use and planning, trading, compliance and food security, as well as many others. These have included the Commonwealth legislation to establish the IGWC, a Commonwealth Senate Committee review into floodplain harvesting, a NSW Legislative Council Select Committee inquiry into the status of water trading, and an inquiry into food production and supply conducted by the NSW legislative assembly committee on environment and planning. A snapshot of the 15 substantial submissions Murray Irrigation has authored relating to water policy since 2018 is available on the company's website¹⁴.

We estimate our engagement with governments and related activities equates to approximately three Full Time Equivalents. We regard this engagement is paramount to our business. However, governments need to recognise that participating in consultation is an ongoing cost to the company in terms of resource intensiveness and intellectual capacity, while simultaneously working hard to implement our strategic plans and deliver services for customers. There is also in the opportunity cost of time lost dealing with ambiguity while policies are deliberated.

Despite the goodwill of some government officers working on the ground, there have been few opportunities for MIL to contribute to new policy thinking or positively influence a tangible outcome. Rather, much of our engagement is focused on mitigating risk or avoiding potential impacts of not engaging, for example, in the area of water buybacks. In the time since the Productivity Commission's last review, MIL estimates it has facilitated more than 100 ministerial, Member of Parliament (MP) and government department and/or agency visits, site tours and meetings in addition to approximately 150 industry meetings and events.

In addition to this is the significant time that our farmers themselves are investing in making sure their views and contributions are heard by the right people in government at the right time, with varying degrees of success.

Consultation observations since the Productivity Commission's 2018 review

As a key stakeholder regularly invited to be part of consultation, MIL has observed that the amount of consultation occurring on the ground by Commonwealth and MDB state agencies has increased substantially

¹⁴ <https://www.murrayirrigation.com.au/about#Submissions>

over the past five years. However, there remains a lack of evidence to demonstrate whether the increase in consultation has in fact delivered more tangible outcomes for communities.

There is a sense that government officers are more readily accessible across the southern Basin. This is positive in that it provides visible evidence of MDB governments delivering on recommendations they are receiving from the Commission and arising from other reviews. MIL has, in particular, worked positively and constructively with NSW and Commonwealth environmental water managers and some departments where officers have listened carefully and have been responsive. We were also able to engage well with the Productivity Commission during its last review period. However, given the extent to which the SDLAM targets in the Plan will MIL and our customers, it is our view that the consultation process over the past five years, whilst it may be well-intentioned, has lacked alignment relevant to geographic areas, and has not fairly included those likely to be left behind or worked hard enough to be wholly inclusive.

We know of examples, including recently, of farmers receiving insufficient notice to participate in local consultation on critical issues such as water purchasing and have then had to navigate long journeys to attend big ‘town hall’ meetings in an effort to have their voice heard. MIL itself has been directly impacted by a handful of meeting clashes between agencies, suggesting that centralised information planning and sharing may still not be happening.

The perception is that government agencies still demonstrate a preference for a ‘town hall meeting’ model of engaging farmers. This is challenging to the many capable and highly skilled people in our communities who have a genuine desire to constructively contribute. The Commission should be aware that engagement continues to be extremely fraught in some communities where debate has become divisive. We agree with the sentiment of the 2020 Independent assessment of social and economic conditions in the Murray-Darling Basin, chaired by Robbie Sefton (the Sefton Review), that: “Some people who have found a way to prosper in the current environment are reluctant to share their success because others are doing it tough.”¹⁵

The frustrations and concerns of our farmers also continue to be exacerbated by a feeling of being over-consulted, but still not genuinely heard. Where government officers with the skills and capabilities to converse on important issues are not present, or those leading consultation are unaware of the state-of-play of policy making, it erodes trust and compounds a view that time spent providing feedback bears no positive outcome. Further, while consultation is happening, farmers are not sure how their feedback has informed decision making. As an example, MIL is unaware of the status of Productivity Commission recommendations from its 2018 review: which recommendations have been implemented; will be implemented; or will never be implemented. At its most cynical, consultation is being interpreted as ‘ticking a box’ on decisions which are foregone, or that decisions informed by consultation contributions provided in good faith are at the behest of other, louder voices.

There is also concern that decisions are being made to achieve short-term objectives, but are deficient in a long-term vision for change, or specific enough to allow farmers to work with agencies to achieve the support required to adjust to SDLs. MIL suggests that there needs to be a discussion and a deliberate decision made about at what point there will have been enough consultation to inform these decisions, and when the views

¹⁵ Independent assessment of the social and economic conditions of the Murray Darling Basin, 2020, panel-report.pdf (dcceew.gov.au)

and perspectives which are provided by people with expertise and capability will inform tangible policy outcomes. The summary question for us is, when will agencies and decision makers be satisfied that they have the information to equip them to make the right decisions over the short, medium and long-term?

We do appreciate that water policy in the MDB is extremely complex and it is difficult to fully comprehend the interaction of various government agencies, rules and legislation. However, this complexity further corroborates the need to ensure good systems and processes in the MDB for sharing information and engaging farmers, industry and communities. Especially when these same communities bear the full negative economic impact of poor decisions.

MIL would welcome the opportunity to be part of consultation which is targeted and specific in supporting farmers and our company to structurally adjust in the short-term, but we also wish to be part of developing a shared vision, where the environmental, industry and community needs of the MDB are considered and discussed at a holistic and strategic level.

Consultation on Basin Plan policy

Consultation (and/or the government priorities on which consultation is based) continues to be too focused on how effectively the Plan is being implemented, but avoids the fundamental question about how MIL's customers and community can recover from previous impacts of water recovery and adjust to a future where further environmental water requirements of the Plan may be targeted.

If significant volumes of water continue to be recovered under the Plan, the adjustment for communities and irrigators is significant.

This adjustment needs to be clearly understood at a range of scales - individual, industry, community, regional and corporate. Appropriate support needs to be consulted on and targeted specifically based on geographic area and sector. Decisions must be made in a way that provides the opportunity for people to meaningfully engage. This means that agencies need to consider what is required between now and the timeframe for full implementation of the Plan, the wide-ranging impact this will have on irrigators and consult accordingly.

For example, if the focus is achieving environmental outcomes with existing water that has been recovered, then MIL recommends consideration be given to how the CEWH and MDB state agencies are bolstered and/or re-tooled to work consistently and collaboratively with a broader range of farmers on-the-ground to achieve outcomes.

We wish to impress upon the Commission that communities have moved and progressed, and that they are open to solutions. Farmers have a strong desire to be involved in conversations about how to sustainably adjust and, in an environment where the outlook may be a reduced availability of water, MIL is also planning how to manage this scenario. However, there is a cumulative impact on MIL and uncertainty cast by statements from interest groups without clear advice from governments and agencies on timing of delivery.

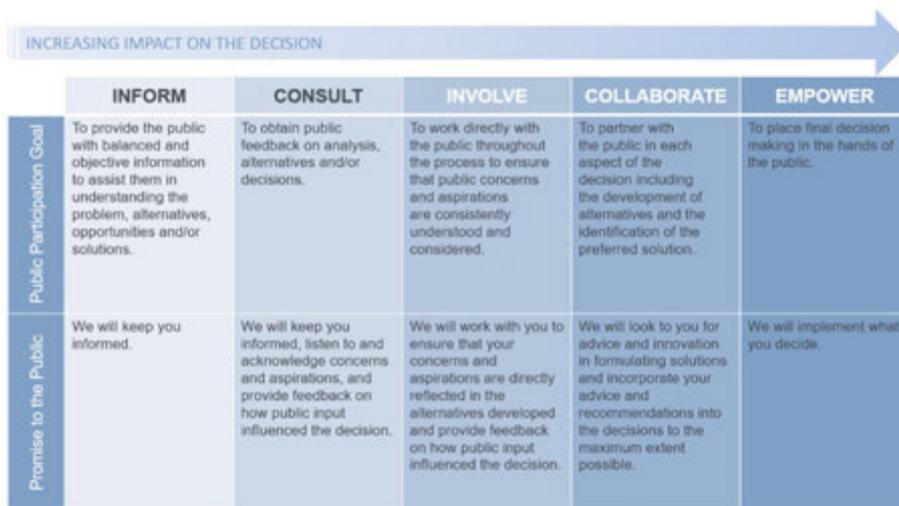
MIL is eager to understand how agencies are using the information we are providing and that our customers are providing, to move forward the range of sectors reliant on a healthy, working MDB. MIL needs to be in a

position to incorporate new water availability policy into our own strategic planning to meet the expectations of our customers. We need clear and consistent advice and strong leadership from governments and agencies in the southern Basin.

Community consultation engagement and design

MIL recognises that MDB consultation is tough, given the complex, multi-tiered and cross-jurisdictional nature of MDB governance and that it can also be difficult to discern between disappointment in the consultation process versus disappointment in decisions made following consultation. But it is our view that, without improving the way Basin Plan consultation and engagement is happening, there is little opportunity that farmers participating will express confidence or respect for outcomes. We see the successful execution of good engagement and consultation design as a fundamental element of the Plan’s implementation.

To achieve this, MIL encourages the use of a properly resourced and delivered model of deliberative engagement, drawing on the well-regarded International Association for Public Participation (IAP2) spectrum (Figure 5).



		INCREASING IMPACT ON THE DECISION				
		INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
Public Participation Goal	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision making in the hands of the public.	
Promise to the Public	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.	

Figure 5. IAP2 Public Participation Spectrum.

If consultation was conducted in line with a best practice approach, it would better position agencies to set clear expectations with farmers and communities about what is needed from them throughout consultation, and it would better position farmers and communities to more constructively participate in the decision making processes. Clarity about the roles of each MDB agency during consultation would also be beneficial.

One practical action governments could take is to have a shared consultation calendar (even if only for water issues), to ensure that irrigators aren’t being called to two meetings in a week that could have been on the same day, consultation avoids key times in the farming cycle throughout the year, ie harvest, and there are shared platforms to educate and raise awareness about topics. Recognising that engagement is in fact a lot about education, it is our view that agencies would not have to be so active in defending themselves if there were further opportunities and platforms to promote greater understanding between communities and agencies operating in the MDB.

We also believe that if the consultation process was very specifically and correctly linked to policies - whether this is development of new policies or review of existing policies - then consultation could be well tailored to the issues of a particular geographic area/sector and with subject matter experts who are able to effectively discuss topics with farmers. Further, if agencies returned to communities on a regular basis to check-in, provide updates and keep those who have provided feedback informed about how their input is influencing policy, it would represent a sound deliberative engagement approach. There isn't an expectation that feedback loops are always maintained face-to-face; ongoing engagement could be virtual. The main objective is to implement a deliberative consultation process which builds trust over time.

The following table (Figure 6) provides an overview of how MIL considers the IAP2 spectrum might apply to Basin Plan consultation and other key issues.

		Activity	Benefit
Inform		Provide communities with sufficient notice period for meetings/consultation opportunities; schedule meetings at appropriate times.	Promotes positive consultation mindset; avoids backlash and participants arrive prepared with considered feedback.
		Provide pre-read information to participants.	Participants fully understand consultation context and contribution expectations.
		Centralise information sharing and education resources.	Continuous up-to-date information builds trust over time outside consultation periods.
Consult		Diversify consultation forums, ie. not just 'town halls'; consider small meetings, online webinars, surveys, one-on-one phone calls, podcasts.	Demonstrates patience, willingness to meet individual needs and commitment to building trust over time; better positions agencies for ongoing engagement.
		Tailor engagement to participants' specific issues and needs.	Builds trust over time and enhances capacity for confidence in process and outcomes; promotes transparency.
		Ensure there are experts present with skills linked to the consultation purpose and able to provide informed responses.	Promotes effective consultation and robust discussion on key issues; participants feel listened to.
Involve		Set clear expectations about how participants' feedback will contribute to decision-making.	Participants understand how feedback will and will not shape decision making and are invested in the outcome; transparency builds trust.
		Be explicit in asking farmers for help with on SDLAM initiatives and open with them about project delivery and progress.	Farmers are the most informed about environmental water recovery benefit potential on their land and invested in outcome.
Collaborate		Work with deliberative engagement processes which involve weighing up decisions, preferences and interests.	Participants are able to strategically engage in competing factors to decision-making.
		Develop genuine partnerships with farmers and other organisations at the local level to deliver SDLAM projects.	Local partnerships are an effective model to build trust and achieve good environmental outcomes through knowledge sharing.
		Ensure there are ongoing feedback loops, so participants are kept informed about how decisions are progressing.	Confidence in knowing how feedback has shaped decisions.
Empower		Work with farmers and community/business leaders to secure advocates.	Builds trust and promotes alternative and different views.

Figure 6. Example of IAP2 spectrum applied to Basin Plan consultation on SDLAMs and other key issues.

Summary Statement: There needs to be a point at which decision makers are satisfied they have the information required to inform good decision making for the short, medium and long-term outlook of the MDB and are able to share with communities how their feedback is shaping policy outcomes.

For MIL and our customers to be confident that the Plan is fair, equitable and managed soundly, we need clear, consistent policy and strong leadership from governments and agencies. This can only be achieved through well designed and effective consultation which puts communities at the heart of decision making, is targeted and aligns very specifically to the adjustments that need to occur for farmers to meet water recovery targets.

Key Question 7

What lessons should be learned from programs aimed at helping communities adjust to the Plan?

Based on MIL's own experiences in regard to direct involvement in the delivery of the Plan since its commencement, MIL considers the following are areas that need reconsideration to strengthen implementation of the Plan:

- Impact of Basin funding for community programs and projects.
- Working in partnership to achieve environmental outcomes.
- On-farm innovations and adjustments to adapt to a future with less water.

Impact of Basin funding for community programs and projects

Given the far-reaching impacts of the Plan on the social, economic and environmental prospects of communities, we appreciate that government funding for programs and projects to transition communities have been varied. The Plan is a \$12 billion investment that includes water recovery, on-farm infrastructure projects, constraints projects and SDLAM projects. However, we wish to highlight that only ~\$200 million was allocated to regional communities when the Plan was launched. This topic was well documented by the Sefton Review¹⁶ which found there is a compelling case for urgent investment in regional and rural communities¹⁷. However, there appears to be a disconnect in government funding for programs connected to water recovery, water efficiency and community-focused project funding.

Programs like the Murray Darling Communities Investment Package 2022 and Murray Darling Basin Economic Development Program have funded several projects in our region, but MIL questions whether the distribution of funding is fair or adequate, particularly in the short-term as farmers meet the immense challenges of less water under the Plan, especially without an extension to implementation timeframes for SDLAM projects.

We have observed that these community-focused projects have been effective in demonstrating government commitment to the future of our irrigators' communities and are playing a role in rebuilding community pride

¹⁶ Sefton Review: Independent assessment of the social and economic conditions of the Murray Darling Basin, 2020, panel-report.pdf (dcceew.gov.au)

¹⁷ As above.

as well as seeking to address high-needs socio-economic impacts and critical service shortages. We note that in our region, projects under the Murray Economic Development Program for example, have included funding to develop digital skills for regional businesses, arts and culture projects, the Deniliquin Seniors' Living Precinct, boosting local medical centre facility development and land improvement innovation projects. However, funding under this program for individual on-farm improvement and adjustment activities has been limited. More can and should be done.

Without the economic success of agribusinesses operating in towns and villages located within the MIL footprint, businesses and agribusiness suppliers in these communities will continue to suffer. We are seeing the deterioration of services, departure of businesses and failure to attract new investment happening as a corollary impact of uncertainty about water availability in the future. These impacts are not due to drought, floods and bushfires, nor are they due to a lack of community pride. Rather, we believe it is the ongoing ambiguity and anxiety about future water availability which is short-changing MDB communities on confidence in the future. Further, where young people are not children of farmers and lack opportunities and prospects, they are choosing to leave the area. This has an impact on future business investment and future leadership in these small communities and risks reinforcing the louder and more polarising voices, over those of new and forward-looking leaders who may be able to take the region forward.

It is our experience that our communities are finding adjustment harder even than industry. This is not just a symptom of the trajectory of rural Australia overall, it's a reflection of how hard irrigation-reliant communities in particular have been impacted over the past 10 years. It is critical that government works hand-in-glove with farmers, communities and organisations like MIL to drive a shared and prosperous vision for the future and where the environment, industry and community is able to thrive and flourish.

Working in partnership to achieve environmental outcomes

MIL has received initial funding from the Commonwealth Government for the Murray Reconnected Floodplains project which proposes to rehabilitate and connect thousands of kilometres of riparian systems and wetlands throughout the Murray floodplain landscape, targeting at-risk ecosystems. As outlined earlier in this submission, the project is upgrading existing infrastructure within MIL's channel network (escapes, channel upgrades) and private land (creek crossings and fences) in rivers, creeks and wetlands to build on previous enhancements by delivering water into natural assets via the MIL channel network. The overarching objective is to deliver better environmental outcomes using water already recovered through the Plan. MIL is identifying opportunities to enhance the effectiveness of its water supply network to enable much greater environmental outcomes through strategic water delivery.

The Murray Reconnected Floodplains is the centrepiece of projects that MIL has submitted to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) which we believe can and should be considered as a SDLAM project, so that a greater environmental outcome is achieved from environmental water already recovered.

The concept where environmental works are completed on-ground so that an environmental outcome is achieved to avoid further water recovery is a sound concept for SDLAM projects rather than the restrictive approach in which SDLAM projects are judged on a 'pass' or 'fail' basis. The current definition of SDLAMs

voids the potential of some projects applying SDLAM 'principles' to be developed and implemented over time. Other ideas (also outlined under Key Question 2) that can be applied throughout the MDB can be found in our submission to DCCEEW titled 'Ideas to Deliver the Murray-Darling Basin Plan'¹⁸

The Murray Reconnected Floodplains project and other project ideas are the outcome of MIL's structural adjustment to reduced water entitlements and strategic investment in environmental water outcomes. They provide a sound template for an approach to achieving strong and successful SDLAM outcomes in partnership with groups, organisations and farmers in our local communities. Such a model could be adopted across the MDB as part of considering what project delivery structures and settings are required at the local level to meet water recovery expectations in the Plan and, even more so, as part of long-term water-resource planning.

On-farm innovations and adjustments to adapt to a future with less water

Farmers in our area of the MDB have been dedicated for many years to investing in innovations to improve efficiency of water use. It is clear that farmers understand the importance of enhanced environmental outcomes in maintaining healthy, working rivers, supporting important ecosystems and improving MDB conditions.

While farmers will continue to find solutions and keep adapting, significant adjustment funding is required to shore-up resilience to extreme weather conditions, ensure adequate water availability for farming and agricultural reliant communities and to address overall the changing nature of regional and rural Australia. Future programs to support Basin Plan adjustment need to also be targeted specifically at supporting farmers on-farm to make the required transition, especially in the short-term as communities move towards adjustment targets. MIL strongly recommends consideration of programs to support extension planning so that irrigators can improve their productivity, diversity, water use efficiency and develop their abilities to direct future adjustments. MIL's customers are dedicated to resilience building and adaptation.

These programs need to be focused on speeding up the adaption of new and more efficient water use technology and innovations so that the economic pain of adaption is limited by softening the impact of transition. They should include a focus on real adaptive management of water resources to optimise the value of water over time. There are good ideas for environmentally-focused projects, and our experience is that they can and do receive support from well informed and well connected staff members at the departmental level, but at times then struggle to get traction at the senior level within government agencies¹⁹.

MIL has just recently submitted an idea to DCCEEW which would involve working with individual irrigators within the entire MDB to use on-farm irrigation infrastructure to deliver water strategically to on-farm wetlands. It is a concept that has worked well for farmers within MIL's footprint and can be easily adapted and extended across the MDB at scale. The principle underpinning the project is that farmers - who are best

¹⁸ <https://www.murrayirrigation.com.au/about#Submissions>

¹⁹ MIL is prepared to discuss this further if required.

equipped to deliver environmental water to their own on-farm wetlands - would be incentivised to identify and deliver water to their sites, combined with initiatives to protect and enhance the sites' ecology.

Our goal overall is to advocate for programs that will enable MIL customers adjust, so that they are able to emerge from the Plan implementation sustainable and future-focused, just as we as a company are seeking to emerge financially sustainable and ready for the future. This means adjustment programs and funding must be delivered in a way that protects the productive capacity of our farmers whilst working towards environmental outcomes. It also means strategically considering projects that deliver more than voluntary water buybacks, which are resulting in diminishing returns for irrigation communities. There is a negative domino effect on services and population which will continue to occur if agencies focus on water buybacks as a mechanism to achieve Plan targets. It also risks undermining the investments that governments are concurrently making in community infrastructure and services, because it undermines the community's confidence in government involvement.

There is a compelling case for investment in a properly funded independent assessment of the economic cost of water buybacks on agri-business reliant communities across the MDB. This would provide governments with a quantifiable understanding of how moving water out of the agricultural sector as a means to achieving water recovery for the environment is impacting the prosperity of Basin communities.

Summary Statement: MIL and the farmers we service are innovating and adapting all the time as we prepare to adjust to a future with less water. In order to mitigate wide-ranging economic impacts to irrigators and to MIL should continued water recovery under the Plan occur, adjustment programs must be targeted specifically at supporting farmers on-farm to continue to improve water efficiency and speed-up the rate of adaption through new technology and innovation. An independent economic assessment of water buybacks on MDB communities is also critical to inform future policy to achieve environmental outcomes.

Key Question 8

Does the implementation of the Plan reflect a commitment to the best available scientific knowledge? How well is this knowledge communicated? What improvements should be made?

The expectation that the Plan will commit to the best available science is an important principle as communities have a right to expect that threshold levels of take and water quality targets are based upon a sound understanding of the biophysical processes. However it is important that this principle not be interpreted as biasing work towards scientific research at the expense of other less 'scientific' but equally important areas of knowledge. The best available knowledge base should be interpreted as a level that is 'fit-for-purpose'. Fit-for-purpose balances knowledge with other important principles such as the people lived experience (especially in the local environment), the need for equity, and a plan that provides for cost efficient and cost effective management.

MIL is confident that any independent scientific analysis will recognise the significant and sustainable environmental outcomes that will be achieved by investing in the strategic watering of the hundreds of wetlands within our network. To many living in the central Murray, it appears that the politics of the current Plan delivery may be more focused on solely delivering mandated flows to the lower lakes in South Australia.

Furthermore, the scope of knowledge required should not be viewed as being solely the analysis and understanding of biophysical sciences. In a Basin planning context, the understanding and application of knowledge should inform the way in which the Plan considers and manages risk. Understanding these risks, and landing on appropriate decisions for their mitigation, requires a knowledge base that is much wider than science.

In the view of MIL, the Plan supported by State based legislation and policies is well adapted to managing short-term risk. The MDB's knowledge base has been used to set caps, assign water shares that represent both volumes and reliabilities, and provide clear mechanisms for sharing the scarce resource. We have effectively developed strong water market and carryover arrangements that enable water users to adapt to variability in water availability.

Inadequate risk assessment

In terms of longer timeframes, the Plan has only utilised knowledge to address the risks to the environment through redistribution of water use from irrigation. However, the Plan does not adequately consider other elements of risk, particularly those arising from the imbalance in irrigation water use across different community and agricultural sectors. The rationale for the current distribution is that the market allows water to move to where it will deliver the highest value returns, however the market is not particularly adept at factoring the potential for climatic and/or economic shocks that could have profound impacts upon communities.

For new developments in the Mallee region, significant developments have led to short to medium-term economic rewards in the locations where these developments have been established, which integrates through all sectors of the local community. However, in the face of climate change it is a matter of when, not if, an extended Millennium drought scale scenario will arise. Unlike annual cropping regimes in the Riverina, there is much less flexibility to manage high water use permanent plantings under conditions of severe water shortage, with potential catastrophic economic consequences for investors and to dependent communities.

For irrigated cropping in the Riverina, economic theory holds that, when water is plentiful, annual cropping can readily expand making use of a cheaper water supply. However, to preserve cropping capability, there must be an expectation that it will be utilised at a sufficient scale to justify holding and maintenance. If over the longer-term, drier seasons prevail and so most available water is channelled to permanent plantings, the extent to which irrigated cropping can utilise low priced water may well diminish.

Importantly, the Murray-Darling and Australian community have, over the last two decades, come to understand that the climatic and trade shocks can and do occur. Rather than waiting for failure as drought returns or rivers are unable to deliver, the Plan should utilise this understanding to mitigate the risks. For

example, limiting the total developed area of permanent plantings in lower reaches of the river systems and so avoiding undermining the viability of both the permanent plantings and the wider diverse production. In other words, just as the Plan seeks to achieve a balance between use of water for the environment and use of the water for irrigation, so too should it seek to achieve a balance across sectors and communities. Such a strategy may well reduce the economic gains from water over the short to medium-term, but this cost may well be small as compared to the potential implications of loss of irrigation industries and vibrant irrigation communities.

In short, maintaining diversity in the range of produce and the distribution of communities engaged in irrigation production will build resilience across regional landscapes and ultimately the broader MDB.

Summary statement: MIL is confident that a renewed focus on delivering significant volumes of water to mid-river wetlands throughout the Southern MDB will be supported by communities. A number of pilot environmental releases in the Tuppall and Cockran creeks have already delivered proven environmental benefits.

Key Question 9

Are there any other issues with Plan implementation that you wish to raise?

Construction costs

We recognise that we can all do better to work together and deliver outcomes, efficiently and frugally. MIL wants to reset this delivery model and offer project delivery services, given our experience in delivering state government programs. Whilst recognising the challenges of remote sites, Covid related frustrations, and the difficulties posed by both drought and floods, the reported cost of works constructed to deliver outcomes goes against good governance and is undermining real options to providing alternatives to buyback.

For this reason, water buybacks are often pursued by interest groups to offer even better value when, in fact, really good works with real outcomes for the Riverine environment could be delivered for a lower cost, and in the longer term deliver much better value for the environment and community. Organisations such as MIL are prepared to demonstrate that the organisation can and will deliver infrastructure project delivery and water management (operations) with greater certainty, at a lower cost and with greater effectiveness than government agencies, whilst maintaining project delivery standards.

6 Acknowledgements

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