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Growing opportunity – water and beyond.

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Submission to the

Senate Standing Committee on Rural Affairs and Transport

Inquiry into the Management of the Murray-Darling Basin

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Introduction

The release of the Guide to the Proposed Basin Plan (the 'Guide') has generated real concerns about the socio-economic impacts of the proposed water cuts and created uncertainty about the long-term viability of some towns.

The recent resignation of MDBA Chairman Mike Taylor has cast further doubt over the ability of the Murray-Darling Basin Authority to handle the enormous task of delivering a balanced Basin Plan.

Murrumbidgee Irrigation welcomes the opportunity to provide a submission to this inquiry being undertaken by the Senate Standing Committee on Rural Affairs and Transport.

This submission addresses a number of specific aspects of the Committee's Terms of Reference related primarily to the development of the Basin Plan.

Executive Summary

The cuts proposed in the Guide will have a devastating effect on communities in our region. If the Basin Plan is implemented as described in the Guide, it will have a significant impact on our ability to run an efficient irrigation system. It could also lead to large parts of the system being shut down and drive our pricing dramatically upwards.

Murrumbidgee Irrigation does not support the Guide in its current form. We believe it fails the test of good public policy and it does not meet the National Water Initiative (NWI) intergovernmental agreement standards applying to environmental outcomes. We also believe that the MDBA has demonstrated – through its management of the release of the Guide and the associated consultative process – that it is not equipped to deliver a sustainable and balanced Basin plan.

We understand that the government is committed to delivering outcomes for the environment, economy and communities without compromising any of these outcomes. We believe that the advice of the Australian Government Solicitor (AGS) underpins this objective but if the Water Act puts this in jeopardy then we support legislative amendments to remove any ambiguity.

We believe that it is possible, and technically feasible, to deliver a triple bottom line outcome and a balanced Basin Plan, through a collaborative approach between governments, community, industry and environmental groups. In the meantime, government buy-back and infrastructure programs should be improved and better co-ordinated so that they deliver stronger outcomes for the environment and Basin communities.

Our perspective on the MDBA's Guide to the Proposed Basin Plan

The Murray-Darling Basin Authority (MDBA) has been charged, under the Commonwealth Water Act 2007, with developing a Basin Plan for sign-off by the Australian Government. Time delays, voluminous amounts of questionable material, unbalanced recommendations, and a consultation process that provided few answers and many excuses have left Basin communities angry and frustrated with the process.

Murrumbidgee Irrigation (MI) does not support the Guide in its current form. We believe it fails the test of good public policy and it does not meet the National Water Initiative (NWI) intergovernmental agreement standards applying to environmental outcomes (Sect. 78 and 79).

The response from communities and government since the release of the guide strongly suggests that there are some serious deficiencies that need to be addressed. The majority of the 20,000 people across the Basin who attended the consultation sessions have made it clear that they support a healthy environment but not at the expense of regional communities.

The Minister for Sustainability, Environment, Water, Population and Communities, acting on advice from the Australian Government Solicitor (AGS), has made it clear that the MDBA must take a triple bottom line approach in the Basin Plan. The Minister has stated that he wants the plan to deliver a healthy river system, food production and strong communities. If this cannot be achieved within the confines of the current Act then there must be legislative changes.

The resignation of MDBA Chairman, Mike Taylor was another telling indictment on the process so far. In his media statement, Mr Taylor made it quite clear that there are still significant issues with the legal interpretation of the Water Act. In relation to the development of a sustainable Basin Plan he said "while the Authority has an important part to play, it is neither empowered nor equipped to undertake the entire complex task."

In our view the Guide makes little or no attempt to explore the central relationship between socio-economic and environmental assets and conditions over time. Key omissions include:

- A full accounting of the water recovery programs throughout the Basin (surface and groundwater) since the introduction of the Murray-Darling Basin (MDB) Cap, and analysis of results

- The failure to identify and analyse the full range of factors (water and non-water) that contribute to ecosystem problems

- The over-reliance on broad ratings of hydrological and ecosystem health. More specific data is required if the objective is to optimise ecosystem outcomes.[1] Also the ratings were determined at the height of the worst drought in recorded history in the Basin (from 2004 to 2007). It is dangerous to draw structural conclusions based on data from a cyclical downturn[2]

[1] These problems are subsequently exacerbated in the Guide when it uses just three broad ratings to specify hydrological health targets. Good is when average flows exceed 80% of "natural" flows, moderate is when average flows range between 60% to 80% of "natural" flows, and poor is when average flows are less than 60% of "natural" flows.

[2] Environmental assets and services, like people and their assets, suffer significant declines during drought, and other natural disasters.

- The failure to estimate an optimal condition of either ecosystem or river flow health given the massive changes that have taken place since the system was regulated. A 'without development' benchmark indicator of ecosystem health in a highly regulated and altered river system could be dangerously misleading.

The Guide does not provide overarching objectives for the Murray-Darling Basin, in terms of its environment or its people. The primary justification for intervention continues to be a qualitative evaluation – without drastic action the Basin environment will seriously decline or fail, and take most inhabitants along with it (based largely on the ratings analysis and other snapshot evaluations). There is little science[3] provided to justify such a strong conclusion. Our assessment is based on the following:

- Basin-wide sustainable diversion limit (SDL) targets are set with reference to objectives for hydrological health rather than environmental health as required by the Act. However, hydrological health is just one of many factors that contribute to environmental health. The current method used in the Guide has eliminated environmental objectives as well as socio-economic considerations from Basin-wide objectives

- The Guide does not sufficiently specify targets for individual environmental assets to enable stakeholders to understand the vision or to make an environmental manager accountable for performance. There is no pathway for targets to meet objectives

- The objectives and targets for individual assets and services are not linked to the achievement of Basin-wide outcomes (not least because the Basin-wide water recovery is based on hydrological rather than environmental health).

The Guide considers just one option to deal with hydrological health (which it assumes equates to ecosystem health), namely the transfer of very large volumes of water from existing water users to the Commonwealth environmental water holder. It fails to identify and evaluate the range of strategies available to meet the needs of additional water for the environment including investment in water savings, improvements in river management, and 'works and measures' to deliver environmental objectives. This is inconsistent with a triple bottom line approach.

The Guide fails to establish a transparent and workable decision-making framework to evaluate all strategies (policies, programs, and projects) to deliver objectives and a longer-term vision. This framework would require ecosystem and socio-economic modelling that is able to deal with trade-offs and the optimisation of outcomes for both the environment and communities.

[3] Science is used here to define the statistical, ecological, economic, or hydrological fields of study used in the Guide.

Understanding the region and the role we play

The Murrumbidgee Irrigation Area (MIA)

Established in 1912 following the commissioning of Burrinjuck Dam in the Snowy Mountains, the MIA was conceived by the government of the day as a purpose-built scheme, designed to feed and provide employment opportunities for a growing nation. Although some things have changed over time including a growing awareness of and responsibility for our natural environment, the original vision for the MIA is as important today as it was 100 years ago.

The MIA was constructed as a gravitational irrigation system near the Murrumbidgee River at Yanco. Further expansion occurred in the 1970s with the completion of the Snowy Mountains Scheme and construction of Blowering Dam. Today, the MIA is home to over 50,000 people with the majority of jobs tied inextricably to water supplied by Murrumbidgee Irrigation (MI) to farms and industry. The MIA is one of the most diverse and productive regions in Australia, contributing over $3 billion annually to the Australian economy.

Murrumbidgee Irrigation (MI)

In 1999 the MIA (and Districts) was formally separated from NSW Government ownership and MI now operates as an unlisted public company (limited by permanent shares) owned by the irrigators we supply. MI is one of five privately owned irrigation companies in NSW.

Our core business is water management. We provide irrigation water and drainage services to the MIA. The Company manages $500 million of infrastructure assets, has an annual turnover of around $50 million and services over $2.5 billion in water entitlements.

We have a proven track record in the water delivery and drainage business. Since taking over from the NSW Government, MI has achieved a 43 per cent real reduction in the costs associated with providing water to our customers.

The MIA covers an area of 660,000 ha of which an average of 120,000 ha is irrigated. The company employs 180 staff, with offices in the towns of Griffith and Leeton.

MI operates over 3,500 km of supply channels, and 2,160 km of drainage channels. The integrated supply and drainage system gives us the strategic advantage of being able to re-use a majority of water within the area. Our Integrated Horticulture Supply (IHS) program is currently refurbishing 230 km of open channels with a piped, pressurised system for improved water use efficiency.

The Terms of Reference

(a) The implications for agriculture and food production and the environment
(b) The social and economic impacts of changes proposed in the Basin
(c) The impact on sustainable productivity and on the viability of the Basin

Cuts will have a dramatic impact on the MIA

The Guide has recommended range of reductions in water use for the Murrumbidgee Valley that are so high that if implemented, will have a devastating effect on communities in our region, and across the Basin. These cuts are based on the premise that the environment must take priority and the Guide does not give sufficient regard to the impacts on people and communities.

Most water use in the Murrumbidgee Valley takes place below Narrandera in the South-West region of the Valley. This encompasses the Murrumbidgee Irrigation Area, the Coleambally Irrigation Area, and river pumpers from Narrandera to Balranald. This area has a vibrant economy based largely on irrigation production, processing of that production, services to agriculture, retail services, and other economic and social service industries.

If we examine for example, the lower end of the sustainable diversion limit (SDL) scale, the permanent reduction in water use of 665,000 ML in the Murrumbidgee Valley after allowing for the 'credit' of 64,000 ML would likely require a reduction of approximately 270,000 ML from the MIA. In addition to estimated reductions of 100,000 ML already delivered by MIA farmers (largely ignored by the MDBA in the Guide) this means that average annual farm use would need to fall to about 370,000 ML from its average annual historical use of about 750,000 ML. In other words, on-farm use of water in the MIA will need to decline by about 50 per cent in order to deliver the MDBA minimum target of a 32 per cent permanent reduction.

A reduction in average annual on-farm water use of approximately 370,000 ML would reduce GVIAP by almost $300 million per year and direct on-farm employment by 2,500 full time equivalent (FTE) jobs.[4] The corresponding reduction in the direct value of on-farm productive assets is estimated at $1 billion. The estimated indirect impacts on urban communities would mean total FTE job losses of 4,500,[5] and the loss of 12,500 people from the region.[6] The reductions in urban assets (including house values, business, and community assets) would likely be much higher than $1 billion.

These are losses that the MIA region cannot afford. Towns such as Leeton, Griffith and Coleambally will be disproportionately affected, and the social hardship is likely to be devastating.

These estimates are in line with the data provided to the MDBA by ABARE, Marsden Jacobs and Associates and Judith Stubbs and Associates. Further modelling, consistent with taking a triple bottom line approach to the Basin Plan needs to be conducted.

[4] The GVIAP estimate reflects the average GVIAP per ML in the Murrumbidgee Valley in 2008-09 (ABS Catalogue 4610.0.55.008, "Experimental Estimates of the Gross Value of Irrigated Agricultural Production, 2000-01 to 2008-09). The estimate of 2,500 job losses reflects an estimate that GVAP of about $120,000 was required to support 1 FTE job on-farm from data in the ABS Agriculture Census, 2006.

[5] Typically indirect estimates are of the order of 2 times direct impacts. For instance the ABS estimates a multiplier of 1.828 for agriculture generally (ABS Census, 2006, NSW).

[6] The population losses are estimated using the ratio of population to employment losses used in "Griffith Case Study, Exploring the Relationship between Community Well Being and Production in the Murray-Darling Basin, Judith Stubbs and Associates, 2010".

Cuts will affect our ability to run an efficient irrigation system

The Murray-Darling Basin Plan is without doubt the most significant challenge in the history of our irrigation scheme.

Prior to the release of the Guide, MI developed a new corporate plan based on having less water available to our business and the region. At that time, we were working on the assumption that the MDBA would deliver a balanced Basin Plan. Our corporate plan is based on the premise that MI needs to grow and diversify its business and in doing this, create opportunities for customers in an environment of reduced water availability. Areas of diversification may include investment in the energy and carbon sectors in addition to water markets, products and services. We believed that by pursuing this path without losing sight of our core business (water delivery), we would not only survive a future with less water but give the business the best chance to thrive under this scenario.

Unfortunately, the Guide did not deliver a balanced recommendation, in fact far from it. Reductions of between 3,000 and 4,000 GL across the Basin and cuts of 32-43 per cent in the Murrumbidgee Valley go well beyond a 'normal' planning base and will not allow for diversification in the face of change. Reductions of this scale will turn our successful business model on its head and put essential services at risk.

If the recommendations of the MDBA were to be accepted by the Australian Government, large irrigation infrastructure businesses like ours (and many other similar, smaller businesses) will be faced with some difficult decisions. We have reduced costs by 43 per cent in real terms since privatisation of the business in 1999. Further productivity gains are possible, but we are at a point where cost reductions are unable to keep pace with the changes to our operating environment.

In real terms, reductions of the magnitude proposed by the MDBA will result in the forced closure of large tracts of the MIA, put a successful business model at risk and the businesses of many of our customers. It will also have far-reaching effects on our local communities. Despite a laudable commitment to buy-back from willing sellers only (in addition to investment in infrastructure), it is inevitable that the Guide recommendations would also result in higher water access costs for those left behind. Notwithstanding our ability to maintain downward pressure on costs over the past decade, this is not sustainable under the scenarios outlined in the Guide.

MI remains committed to working with the Australian Government to find a solution. We understand and support the improved health of the Basin environment but not at any cost. While government will ultimately make a decision on a Basin Plan it must understand the full implications of such a decision and the trade-offs required to achieve balance.

General comments in response to points (d) - (j)

Our thoughts on a way forward

Leaving aside the deficiencies of the Guide and based on the recent commitment by the Australian Government to delivering wins for the environment, economy and communities without compromising any of these objectives, there are a range of solutions available to assist in the goal.

1. We can combine buy-back and infrastructure programs

While we believe government buy-backs together with infrastructure investment for water savings is the best way to recover water for the environment, the current approach is making service and asset planning impossible. We still need to manage infrastructure covering more than 660,000 ha despite the potential loss of significant amounts of water entitlements from the district through government buy-back schemes.

Our challenge is to facilitate a more orderly reconfiguration of the Murrumbidgee Irrigation system without threatening the viability of our customers. A joint program of investment in new-age infrastructure and rationalisation of redundant infrastructure is critical, if we are to improve and maintain existing levels of service in an operating environment with less water.

In November 2009, we developed a submission to the Commonwealth's Private Irrigation Infrastructure Operator's Program. From a funding bid of some $270 million we received only partial funding of $50 million for the reconfiguration of the Lake Wyangan system and generation of water savings. This was committed by the Commonwealth in April 2010 but has not been received to date given associated taxation issues. We have worked closely with the Commonwealth and remain confident that these issues will be resolved in the near future.

If we are to adequately prepare for a future with less water, in a way that does not result in a cost base that in unaffordable for those remaining in business, then a single program combining elements of both government programs must become reality.

2. We can look at opportunities outside the current program scope

MI has runs on the board when it comes to delivering outcomes for the environment without compromising other values. Returning 20,000 ML of water savings to the Snowy River system through the redevelopment of Barren Box Swamp is one large-scale example. Perhaps less well known are opportunities for the Commonwealth to become a purchaser of water products outside those currently available in the market (permanent entitlement and annual trade).

RiverReach is one such product that we have developed with funding from the Water Smart Australia project. *RiverReach* products are contracts that enable entitlement owners to sell or term-lease water based on agreed conditions. In other words, forward sale products that allow irrigators (or other entitlement holders) to retain their licensed entitlement but forward sell their annual allocation against that entitlement for an agreed period. We estimate that this type of product could deliver as much as 250,000 ML[7] across the southern connected system of the Basin.

Other potential products in this veneer include buy and lease-back, options and futures. The Commonwealth should also be active in the temporary water market as both a buyer and seller.

3. We can explore works and measures to improve environmental outcomes

Options include:

- Irrigation of wetlands at critical times
- Infrastructure to manage floods
- Carp mitigation strategies

[7] Estimate based on first hand discussions with large private and government irrigation businesses as part of the 'RiverReach' project under the Water Smart Australia program, 2009

- Better land management practices
- Fish ladders
- On-route storages
- Managed 'cease-to-flows'.

There is nothing innovative in the proposed Basin Plan, unless shutting down communities is considered innovative. By their own acknowledgement at public meetings, the MDBA has not considered smart solutions to achieve environmental objectives with less water, they have simply relied on creating massive river flows to provide "overbank events" irrespective of the actual requirements for the target sites.

In the Murrumbidgee Valley, there is good evidence that all outcomes can be achieved with significantly less water. MI is collating data which supports this position for the two target assets, the mid-Murrumbidgee wetlands and the Lowbidgee floodplain.

The direct measures of water market operations and infrastructure spending to deliver a sustainable Murray-Darling Basin environment could be complemented by other initiatives including:

1. *Research and development (R&D)*

   The key role of water use efficiency suggests that there may be significant benefits from investment in R&D to improve water use efficiency on-farm, in-systems, and in delivery to environmental assets.

   Firstly, R&D on-farm is mainly conducted through industry-based research centres, however the level of support is based on annual levels of production. It would seem perverse if the level of industry R&D were to decline at the very time that we, as a nation, need it most.

   Secondly, there seems to be little R&D directed at improving water use delivery within river systems. This function is left to the agencies that are providing water delivery services or that manage river operations (on behalf of the environment and users). Usually they have few resources to devote to R&D. Many opportunities for improvements through works and measures may be lost because there is not sufficient investment in this area.

   Thirdly, given the current knowledge constraints associated with the Basin Plan, R&D directly focussed on the environmental issues of the Basin Plan would likely yield major benefits. One of the benefits could include determining the response of basin environmental assets to additional water and identifying least cost ways to deliver targeted environmental responses.

   Finally, governments have historically avoided the funding of on-going monitoring through R&D programs. The guide to the Basin Plan identifies significant deficiencies in the data, which in our view is a direct function of withdrawal of investment in monitoring over time. Long term programs are required, not short term project-based research.

2. *Improved Commonwealth and State Government co-ordination*

   A large number of agencies associated with natural resource management activities have a major bearing on the state of the MDB environment. These include fisheries, agriculture, environmental protection, forestry and national parks and they are spread across state and federal jurisdictions. If an independent authority is to be able to tackle the MDB

environment from a triple bottom line perspective then it must be able to tap into such agencies regularly to exchange information, assist in the formulation of projects, and coordinate implementation (including the management and use of environmental water).

The establishment an inter-governmental agency may be worth exploring as a means to improve coordination and resource allocation.

3. *Taxation*

It is extremely rare that taxation issues do not become very important with respect to implementing a program that is as far-reaching and large as the Basin Plan. The Australian Tax Office (ATO) should be involved early so that tax issues can be dealt with rapidly and transparently. There is also the possibility that tax incentives may be a better way to deliver some of the objectives of the infrastructure program rather than direct investment by governments. For example, tax incentives for delivery of specific environmental outcomes critical to Basin health may be more efficient than one-off projects.

Conclusion

The proposed Basin Plan is neither innovative nor visionary. The plan will facilitate the displacement of communities on a scale rarely experienced in Australia and result in impacts beyond the boundaries of a Basin which produces one third of Australia's food supply.

Even under ideal circumstances such a program would be extremely ambitious and very risky. Unfortunately, most of the scientific community and even the MDBA, acknowledge that our understanding of environmental water management is embryonic. Our databases and models are inadequate and in some cases highly disputed and we are clearly over-reliant on so called water 'experts' (over 1,800 reports and $47 million in consultant's fees on the Basin Plan alone is clear evidence of this).

Political expediency has brought the basin planning process to a point of near collapse but there is time to get this right. The Murray will not die tomorrow and it will not die in the next twenty years. Since the early 1990's the Armageddon theorists have called for urgent action to avoid imminent system collapse. Two decades on and the system remains no less resilient than it was back then. During the current floods we have seen remarkable recovery of areas and species once written off as "beyond salvage". What we need is a balanced plan based on common sense. We must take into account the needs of environmental assets as well as the needs of all farmers, workers, businesses, industries and towns.

Recent history reminds us that well-intentioned national programs have failed because of haste and inattention to detail. Sustained incremental improvements will ultimately be more beneficial than one-off fixes.

A poorly prepared plan will do more harm than good and it will impact all Australians.