



Submission to House of Representatives' Standing Committee on Regional Australia's Inquiry into the impact of the Murray-Darling Basin Plan in Regional Australia



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Introduction

The town of Coleambally was developed in the 1960s for the sole purpose of supporting farmers who were encouraged by the NSW Government to move to the area and commence irrigated farming following the completion of the Snowy Hydro Scheme. The town remains solely dependent on irrigated farming to this day.

Coleambally Irrigation Cooperative Limited (CICL) is wholly-owned by 354 farmer members. CICL operates the fourth largest irrigation operation in Australia and the most modern open-channel irrigation system in the country; indeed it is one of the most modern open-channel systems in the world. The system, which attracts significant international interest, is gravity fed; solar powered; incorporates state of the art metering and flow regulation technologies and provides for automated water ordering and water accounting. In addition, CICL's members have spent \$104m over the last decade improving their land and water management practices and enhancing local biodiversity.¹ CICL also manages 1700ha of Crown land that has been set aside for biodiversity purposes.

Discussion

CICL wishes to preface the commentary that follows with the observation that the MDBA was presented with a task that is far more complex than those that levied it would have appreciated at the time; no other country has attempted to do what Australia seeks to do. CICL submits that the Authority has failed to come up with the basis for workable Basin Plan but this comes as no surprise to the Cooperative²; the Authority is working with an Act (*the Water Act*) that provides insufficient scope for manoeuvre; with politicians who are only now starting to acknowledge that there may be a problem with that Act and others who remain in denial; and timelines that were from the outset completely unrealistic.

CICL does not wish to challenge the MDBA's level of endeavour or commitment; it has met some extremely intelligent and hard-working people within the Authority. It had confidence in its Chairman, Mike Taylor, and is of the view that his decision to resign says a lot about the construct within which he was required to operate.

Notwithstanding the criticality of the outcome of the Basin planning process to CICL, its shareholders, the community of Coleambally and indeed all Basin communities, the Cooperative has chosen not to attempt to 'dissect' the 1200 pages that constitute the Guide and the thousands of electronic documents that sit behind it. While CICL is Australia's fourth largest irrigation corporation, its core business is that of delivering water and the 25 fulltime staff in its employ include people who are expert in their knowledge of water management; who have intimate knowledge of the Murrumbidgee river system and local hydrology and who have been around long enough to know that Australia is indeed a land of droughts and flooding rains. It also has people, and supplies water to people, who are

¹ This expenditure incurred within the context of the Land and Water Management Program with the Commonwealth and State Government collectively contributing approximately \$16m.

² The terms MDBA and the Authority are used interchangeably throughout this submission, as are the terms CICL and Co-operative.

highly committed to the preservation of local biodiversity. It does not have scientists, economists and modellers at its disposal. Even if it did have, CICL would have to give serious thought to whether there was value in directing them to the dissection of the Guide because it remains unconvinced that the invitation to make submissions to the MDBA is other than a matter of process. CICL makes this observation on the basis that the only person from the MDBA who has actively sought to engage with it has been Mike Taylor and he is no longer with the MDBA. Nonetheless, CICL feels compelled to respond to what it sees as fundamental weaknesses within the Guide and with the Basin planning process and the fact that CICL is not replete with scientists, economists and modellers does not render it unable to comment because these weaknesses are apparent to even the non expert.

Where is the Environmental Watering Plan (EWP)? If one accepts the proposition that the health of the Murray-Darling system has been eroded because too much water has been extracted for consumptive purposes and that the key to restoring the system's health is a requirement to further limit the amount of water for such purposes³, it is axiomatic that there must be a plan to enable that. The absence of such a plan within the Guide is quite astounding and in CICL's view renders the document manifestly deficient. Coming to grips with the Guide is akin to taking delivery of one's new car, only to find that it has not come with an engine.

CICL has reflected on why the Authority chose to release the Guide without an EWP and has had to conclude that either the EWP was not sufficiently developed to be included, or that it is considered to be too sensitive to be included. Either way, CICL asserts that Guide has failed to deliver the core element against which all other elements have to be factored. This single failure alone renders the Guide an unacceptable basis on which to proceed given the extant planning timelines.

Are the SDLs acceptable? Setting aside that the SDLs would devastate many businesses and communities throughout the Basin and impact in various ways on all Australians, even a modicum of scrutiny suggests that the science behind the proposed SDLs is less than robust. It is asserted in the Guide that end-of-system flows must be maintained at levels of between 60%-80% in order to maintain appropriate levels of river health and the Authority relies on this assertion to underpin the development of the SDLs. CICL has used the word "asserted" quite deliberately because it can find no scientific methodology in the Guide which establishes how this range has been determined.

CICL notes that the Guide identifies the health of the river system upon which the Cooperative relies, the Murrumbidgee, as being "poor". Given this assessment appears to have been based on end-of-system flows in the middle of one of the worst droughts on record and employment of an arbitrary 60%-80% benchmark, the assessment is perhaps not unsurprising.

It was been popularly argued that the poor health of river systems like the Murrumbidgee is the consequence of over-allocation, intensive irrigation and/or poor river management. CICL notes that in 2001, UNESCO's HELP (Hydrology, Environment, Life & Policy) program,

³ And CICL does not.

which was supported by the World Meteorological Organisation and was designed to establish a global network of catchment areas to improve the links between hydrology and the needs of society, examined 25 major catchments throughout the world and identified only one as being suitable as a global reference point – the Murrumbidgee. “It was selected to illustrate water resources management under competing water uses and environmental and economic concerns in an arid zone, similar to many other catchments in the world. The Murrumbidgee region's community was specifically recognised for involvement in cooperative and practical environmental work towards managing water, including hydrological research and integrated catchment management policies in Australia's Murray Darling Basin”.⁴ Perhaps the issue with the health of the Murrumbidgee had more to do with drought rather than human interference and unsustainable diversions?

Are the SDLs bearable? While much has been made of whether the *Water Act* allows for the development of a Basin Plan that can indeed achieve the NWI objective of a balanced outcome between environmental, economic and social needs or not, the more fundamental question is whether or not the proposed SDLs are ‘bearable’ i.e. do they provide a basis for a sustainable environment within the Basin and for sustainable businesses and sustainable communities? CICL contends that they do not and suggests the speed with which the MDBA publically distanced itself when challenged over the modelling in the Guide that suggested that the value of lost production and the number of lost jobs would be limited to \$800m p.a. and 800 respectively across the entire Basin is indicative of the Authority lacking confidence in this area too.⁵

The “best available science”? The MDBA has continually asserted that their work is being underpinned by “the best available science” and there is no doubt that any endeavour as nationally significant as the Basin Plan ought to be. However, the scientific community would be the first to acknowledge that there is much that they do not understand about the climate. To quote from page 33 of the Guide “Scientific work commissioned by the Authority has examined the most recent drought and concluded that, while there is an increasing likelihood that climate change is part of the reason for the recent drought, it is not yet possible to distinguish this component from the naturally high climatic variability experienced throughout the Basin”. Perhaps it’s not surprising therefore that the Authority is only prepared to attach a “medium” level of confidence to much of the science upon which it has relied. Such a position might be acceptable if it was underscored by the highest level of confidence that could be ascribed to the science at the Authority’s disposal, but the Authority further acknowledges that its level of confidence is also affected by the fact that not all of the science has been peer reviewed⁶; indeed it’s implied that quite a lot of the science falls into this category. Given the considerable resources that the Authority has had at its disposal, CICL questions why that is the case and can only surmise that the Authority simply ran out of time in which to either undertake or conclude this critical process.

⁴ Refer to <http://www.clw.csiro.au/help/overview.html>

⁵ MDBA Guide pg xxvii

⁶ *ibid* pg 38

How good is the modelling upon which the MDBA is relying? The CICL acknowledges that the MDBA has identified some of the limitations of some of the modelling it has undertaken or commissioned⁷ and has pointed to the need for further studies. Given the complexity of some of that modelling, CICL questions how such work will be concluded in sufficient time to enable the draft Plan to be developed in the remaining time available to the Authority.

CICL notes that the Authority has not made mention of the fact that the hydrological models they borrowed from the States were manipulated largely without the involvement of those States in order that the models could be made to ‘talk’ to each other. CICL is also aware that some of the subject-matter experts in the States responsible for those models therefore have serious reservations about the results that may have flowed from the manipulated models.

CICL is greatly concerned about the level of understanding of those who applied the results of some of the hydrological modelling. The environmental flow regimes that are mooted are highly questionable in some instances because they appear to exceed the delivery capacity of the river in places; because they have only been achieved naturally under exceptional circumstances; or because they will result in third-party impacts i.e. they will result in communities and/or private properties being inundated.⁸

As indicated on the previous page, the MDBA was quick to distance itself from some of its social and economic modelling when it was publically challenged. In fairness, the Authority does make reference to the limitations of some of this modelling and identifies the need for more work to be done in the Guide. The Authority admits that the extent of the social and economic impacts that will accrue from the proposed SDLs, if implemented, will vary significantly from community to community. Even though the Authority identifies those communities that are likely to be amongst the worst affected, there has been no attempt to model the extent to which those communities, one of which is Coleambally, stand to be affected. You don’t have to be an economist though to know that a town which is solely or heavily dependent on irrigated agriculture and which has been identified to have its access to irrigation water reduced by 37%-43%, and there are many of them throughout the Basin, will have greatly diminished prospects. This might be a matter that could be worked through over a considerable period of time, but it is work that has to be done, and done properly, before any Basin Plan of the magnitude being proposed in the Guide is implemented. Communities like Coleambally are gravely concerned that if such work is undertaken, it will be long after the Plan is instituted, by which time they will have withered to the point where their futures are irrecoverable – such is the history of structural adjustment programs in Australia.

Why is the Guide so flawed? In reflecting on why the Guide is as flawed as it is, CICL again wishes to observe that the MDBA has had to operate within the confines of an Act that severely limits its scope for a manoeuvre and within timelines that are unnecessarily constrained and unrealistic. That said, CICL also asserts that:

⁷ Ibid pg 38

⁸ This proposition can be easily established by reference to NSW’s Office of Water, NSW State Water, and Victoria’s Department of Sustainability and Environment

- The Authority created a rod for its own back by opting to undertake much of its analysis and planning behind closed-doors and in doing so denied itself access to wealth of information across a range of issues that it has clearly struggled to comprehend. Despite the Authority's references to extensive engagement, few industry bodies and few communities would claim to have been meaningfully engaged throughout the Basin planning process. CICL enjoys reasonably good contact with those who run NSW's river systems for instance and knows that the Authority has made very limited use of their expert knowledge; if it had, matters like the actual 'deliverability' of some flow regimes would not be in question. CICL has also spoken to a number of Catchment Management Authorities in NSW and Victoria and know that they too have felt locked-out of the planning process.
- Throughout much of the planning process, the Authority effectively neutered the Basin Consultative Committee by obliging its members not to divulge the nature and detail of their work. This may have assisted the Authority, but it placed the Committee's members in the invidious situation of not being able to respond to their constituencies.
- With the exception of its Chairman, no other Board or staff member of the MDBA has seen fit to visit Australia's fourth largest irrigation company and its most modern open-channel operation. On those occasions where stakeholders have been encouraged to attend MDBA forums in Canberra, the circumstances were highly stage-managed and largely contrived. After setting aside opening, welcome to country and closing addresses, plus time for morning and afternoon tea and lunch, there was precious little opportunity for any meaningful exchange of information, yet large numbers of stakeholders had travelled long distances at considerable expense for exactly that purpose. At one particular stage in proceedings, which could only be described as surreal, participants were provided with a copy of three draft appendices which provided analysis of the key environmental assets in specific catchment areas and discussion of the related environmental watering requirements. These documents were highly technical, lengthy and provided the participants with their first real exposure to the thinking underpinning the MDBA's environmental watering intentions. The Authority's expectation was that this material would be digested and then 'workshopped' in the space of approximately an hour. Little wonder that by the time the MDBA actually did commence to engage directly with stakeholders on the difficult subject matter contained in the Guide, it had no reserve of goodwill upon which to fall back on.

Where to from hereon? That key persons within the MDBA acknowledge that a range of critically important issues warrant further work but remain intent on working to largely unchanged timelines suggests to CICL that the Authority is intent on 'delivering' at any cost or that it is being prevailed upon to do so by the Government. Either way, and given what is at stake, this is unacceptable to Basin communities and CICL. Perhaps the "robust partnership"⁹ that is identified as needing to be in place between the Basin States, the Australian Government, the Authority and Basin communities needs to be preceded by robust discussion by those same parties. The starting point for the discussion might be around recognition of the fact that any Basin Plan that does not provide for sustainable

⁹ Ibid pg xv

agriculture and sustainable communities will not provide for a sustainable environment within the Basin and that the breaking of the drought provides an opportunity to take 'stock' and to move from crisis planning to deliberate planning. Consideration might also be given to the following:

- the need for amendments to the *Water Act*
- the option of reintroducing State-based water sharing plans, by way of having a 'bridging' strategy while changes to the Act are negotiated; while proper socio economic analysis is undertaken and while transitional and structural adjustment arrangements are worked through
- the suspension of the extant 'random' approach to buyback, which creates uncertainty for irrigation companies at the very time they are seeking to make major investments to modernise their delivery systems and which makes it harder for those farmers that seek to remain in business to do so, in favour of a more targeted approach that is combined with existing Government irrigation modernisation funding programs
- the elimination of the obstacles that stand in the way of take-up/roll-out of existing Government irrigation modernisation funding programs
- the provision of funding to properly explore engineering works and measures that might allow for more efficient forms of environmental watering
- revised timelines which culminate in all Basin states implementing the Basin Plan in 2019

Response to Terms of Reference

Direct and indirect impact of the Proposed Basin Plan on regional communities, including agricultural industries, local business activity and community wellbeing

CICL totally rejects totally the Government's proposition that irrigators who do not wish to sell their entitlement will be relatively unaffected by 'buyback'. In the main, those who choose to sell their water entitlement are in fact 'distressed' not 'willing' sellers i.e. they are under pressure to sell to retire borrowings that kept them afloat, but only just, during a decade of drought. The monies these distressed sellers will receive will be returned to financial institution not local economies and the sellers will have little choice but to head for major population centres in order to secure work. Paradoxically, they are likely to again have to enter into debt because they will be selling their other realisable asset, their house, in a falling market and because the cost of owning or renting a home in these locations is greater.

Quite apart from the loss of revenue and equity cause by the buyback, those that remain on the land are impacted in a variety of ways by the loss of their neighbours. Most irrigation farms are relatively small¹⁰ and as such are unsuitable for dry-land farming. A dry irrigation farm inevitably succumbs to infestation by weed. The remaining farmer has not only lost someone with whom he/she could share equipment and labour and upon whom he/she

¹⁰ Farms in the Coleambally irrigation area are typically 200 h.a. in size.

might depend in an emergency, he/she now faces the added impost of having to address the weed problem emanating across their boundary. The remaining farmer's family is also impacted because the departure of every family from the local community diminishes the viability of schools and all community-based activity e.g. sporting clubs, theatre groups, volunteer organisations etc.

CICL utterly rejects the proposition put in the Guide that the net loss across the Basin will be in the order of \$805m p.a. and 800 jobs. This is not consistent with work done by other social and economic analysts¹¹ and defies commonsense – a farmer with 30 years of experience working the land does not find employment agencies knocking down their door to recruit them for jobs in major population centres. As highly skilled as such farmers are, their skills are not readily transferrable into other sectors.

Insert Guide quote. That there is a direct relationship between the health of regional communities and the viability of irrigated agriculture does not seem lost on local chambers of commerce across the Basin and their members have been united in their criticism of the Guide – they know that their businesses are already being affected by the uncertainty associated with its release and they understand that they too are likely to be placed in untenable situations if the proposed SDLs are implemented.

In sum, the Inquiry should be in no doubt that the town of Coleambally and many communities like it will be decimated if the proposed SDLs come into effect.

Options for water-saving measures or water return on a region-by-region basis with consideration given to an analysis of actual usage versus licence entitlement over the preceding fifteen years

CICL finds it frustrating in the extreme that the MDBA's environmental watering regime is predicated on generating over-the-bank flooding at a time when the irrigation industry is the subject of frequent public castigation for wasteful practises. While there are irrigation operations in Australia that require modernisation, there are also others employing leading-edge irrigations techniques and systems. Sadly, the same cannot be said of river management operations in Australia. There is an adage which says 'that if you can't measure it, you can't manage it' and those irrigation companies that have modern metering and that can regulate water flows precisely understand the water savings that can accrue from such improvements.¹² There is the potential for significant water savings to be had by Commonwealth investment in engineering works and measures to enable the States to better manage their dams and river systems and CICL is aware of approximately 20 projects that are under review within NSW's Office of Water and Victoria's Department of Sustainability and Environment that might allow for the more efficient watering of key environmental assets. These projects are in varying stages of review because of resource constraints and CICL believes the Inquiry could make a very positive contribution by acting to elevate the priority and resources being allocated to this work.

¹¹ Marsden-Jacob and Judith Stubbs and Associates are but two of the agencies cited in the Guide that cast serious doubt on this figure.

¹² CICL's own work in this regard has generated water savings of approximately 60GL p.a.

It would be easy to surmise from CICAL's earlier criticism of the buyback, that it believes that this instrument should be abandoned. CICAL's objection to the instrument is that it is so frequently represented by Government as something which simply allows irrigators to exercise choice and that there is no impact on those that opt not to avail themselves to the opportunity to sell their entitlement to the Government because - such representation is patently untrue and as such it adds to the frustration of Basin communities. In addition to the negative impacts previously mentioned by CICAL, the current approach to buyback is also very random and this creates very significant challenges for irrigation companies seeking to modernise as the buyback creates pockets throughout their entire system where there is no demand for water. If these pockets were conveniently situated at the end of their systems, the irrigation companies could reduce their area of operations but that is rarely the case. The impact on a random approach to buyback has become known as the 'Swiss Cheese' effect because it sees delivery systems with holes throughout. This random pattern of impact means that irrigation companies see themselves delivering water across the same sized area of operations, and therefore having the same costs, but to fewer customers. While the termination fee paid by those selling out¹³ provides a buffer for a period of time, ultimately those remaining end up having to bear additional cost. In the nearer term, the irrigation companies have a less than stable base on which to plan their modernisation.

CICAL believes that there is a strong case for a more targeted approach to buyback – one which sees buyback and the modernisation of irrigation systems as parallel endeavours. Such an approach would allow the irrigation companies to work with their customers to bring about the retirement of the least viable parts of their irrigation delivery system while improving the more viable. With the right incentives¹⁴, some of the farmers in the part of the system identified for shutdown might be encouraged to relocate onto a dry farm within more viable parts of the system, or to relocate to another irrigation system. CICAL accepts this type of 'social engineering' will not be easy but it represents a far more rational approach than the current one and warrants serious consideration by Government.

The role of governments, the agricultural industry and the research sector in developing and delivering infrastructure and technologies aimed at supporting water efficiency within the Murray-Darling Basin.

Those that contend that irrigation communities will be able to survive cuts of the magnitude proposed by virtue of modernisation, changing to other forms of production/crops and by breakthroughs in agronomy fail to comprehend the realities of what they propose. Modernisation of an irrigation farm or irrigation company comes at a high price and irrigation farmers and companies require greater certainty before many of them will be persuaded to take the related decisions required – and the Guide has done nothing to assist in this regard. The Inquiry should also understand that while those who engage in opportunistic cropping will generally have optimised their farm layouts and purchased

¹³ Those who seek to sell their water out of an irrigation district are required to pay a fee equivalent to 10 times of their annual access fee by way of limiting the impact of their decision and those remaining.

¹⁴ E.g. the Commonwealth might agree to pay all or part of the termination fee in the event that a farmer decides to sell all or part of their water entitlement in the event that the farmer wishes to continue irrigated farming and is willing to relocate within or to another irrigation system with this payment being part of the overall funding that is made available within a program such as PIIOP.

machinery to allow for the production of a preferred crop, they do not have the luxury of depending on a single form of production. Throughout the drought, many farmers were forced to switch from summer to winter cropping, albeit for lesser financial returns. It is important that the Inquiry also understand that the feasibility of permanently switching to an alternate form of cropping or growing depends very much on whether or not the market is sufficient enough to accommodate the increase in production. While this might seem an obvious point to make, it is surprising just how often CICL is told that its farmers ought to be producing other than cereals by those who have no idea how big the market is for cereals is relative to the alternatives they are suggesting. In the current environment, the Government could make a major contribution by playing its part to re-balance the water debate within Australia by challenging the many myths which are perpetuated by those who are intent on demonising irrigation.¹⁵ The Inquiry might therefore challenge Government to display leadership by promoting the national significance of food production and advocating the importance of irrigation therein.

Those that subscribe to the view that science will be able to more than compensate for the water losses proposed in the Guide have little understanding of the time and money required to bring about the advances they eulogise and of the fact that the amount of money being injected into research and development in agriculture in Australia is in decline. Government should display leadership in this regard, by halting such decline.

CICL acknowledges the significant funding that has been provided to improve water management and promote water savings within the Water for Future program but knows from first-hand experience how difficult it is to access such funding. Government has to act to remove the obstacles that stand in the way of those wishing to take up its incentives and it might start by reviewing its approach to the design of its related initiatives and the guidelines and contracts that underpin them. By way of example, there was an inordinate amount of delay between the Government's announcement of its Private Irrigation Infrastructure Operators' Program and, because of the way in which the related contract was framed, it took almost six for CICL to be able to clarify the tax implications that might arise were it to accept the PIIOOP contract offer that was extended to it by the Commonwealth. A number of the difficulties that were apparent in the guidelines and the contract could have been avoided with better consultation with stakeholders, including the Australian Tax Office and irrigation companies, at the time the program was being designed; Government might acknowledge this by ensuring that future initiatives are underpinned by improved engagement from the outset.

CICL contends that one of the major lessons to be learned from the MDBA's planning process is that there is a big difference between public relations and genuine engagement. Notwithstanding the formation of a Basin Consultative Committee and the hosting of technical forums and significant investments in information releases, the MDBA's consultation strategy has been an abject failure and the Inquiry should exhort the Commonwealth Government to learn from this experience.

¹⁵ Such myths include, but are not limited to, the notions that farmers are in some way responsible for over-allocation; that States have accord farmers' needs ahead of those of the environment; that there are no water sharing plans; and that too much water is produced in the production of rice.

Conclusion

The MDBA's job was always going to be extremely challenging. However, it has been made even more so by virtue of the limitations of the *Water Act* and unrealistic, if not impossible, timelines. As a consequence, the MDBA's Guide does not strike an acceptable balance between the needs of the environment with those of farmers and communities throughout the Basin. In the absence of proper analysis, the MDBA cannot have the level of confidence it should have in the science upon which it is relying, or on the social and economic impacts that might accrue from its proposed SDLs. Moreover, in the absence of an environmental watering plan, there is no context against which the need for the SDLs can be measured.

Were the Basin Plan to accommodate the SDLs proposed in the Guide, many communities throughout the Basin will be decimated and Australia's capacity to feed itself and others will be severely diminished. The Basin Plan is therefore a matter of national and strategic significance. As such there can be no excuse for poor planning, inadequate consideration and petty politicking. Basin communities demand and the nation deserves better.

CICL doubts the MDBA will have the conviction to inform Government that it cannot complete its task within the current timelines; nor does it see the Authority deviating in any significant way from what it has proposed in the Guide. As a consequence, water reform within Australia and regional communities throughout the Basin are on a precipice and any government that thinks that it can address this either by decree or political finesse, rather than by meaningful engagement, is placing itself at the head of failure.

It will take the conviction of the Commonwealth Government, with the support of the Opposition, and the cooperation of State Governments to chart a sustainable way ahead. The Inquiry might assist the Government and the Opposition by highlighting the limitation of the *Water Act* and by encouraging them to co-operate to bring about its amendment. Finally, it might also encourage the Commonwealth Government to act pragmatically and to step back from the precipice by:

- working with the States to re-institute, as an interim measure, the State-based water sharing plans
- adopting a more targeted approach to buyback
- resourcing a detailed examination of engineering works and measures already under review within the NSW and Victorian government departments
- adopting a more realistic time frame in which to implement the Basin Plan