



# Murray Darling Basin Royal Commission

Submission to the  
Royal Commission

April 2018

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## Southern Riverina Irrigators

SRI is a peak organisation providing advocacy for our membership comprised of five landholder associations representing irrigators operating within the footprint of Murray Irrigation Limited in the southern Riverina of NSW.

Formed in the 1960s, SRI now represents over 1,600 water users committed to producing food and fibre through environmentally and economically sustainable practices.

Our key principles are:

- We recognise the property rights of water entitlements
- Water reform must deliver against the “triple bottom line”.

### Key industries

Our region is highly productive utilising water sourced from the NSW Murray above the Barmah Choke. Industries have developed to suit the highly variable water product that is predominant in the region. Despite seasonal variabilities, we continue to produce high quality crops sustainably and efficiently contributing significantly to the gross value of irrigated agricultural production.

Industry	2015-16 (\$M) (23% water allocation)	Average 2010-2016 (\$M)
Rice	\$26.5	\$105.3
Cereals	\$72	\$60.8
Other broadacre (inc cotton)	\$10	\$10
Dairy	\$112	\$99
Livestock	\$58	\$56

Source: ABS Gross Value of Irrigated Agricultural Production 2015-16, NSW Murray

### Compliance

Our irrigators operate in the Murray Irrigation network. We have had our water use metered since the system was designed and constructed. Effective metering gives our landholders confidence that water use is measured and managed. Metering enables the system operator to better monitor the resource and realise system efficiencies that in turn benefit water users.

Since 2012 Murray Irrigation has been rolling out their Private Irrigation Infrastructure Operator Program to upgrade all farm outlets that show a history of use. This upgrade has resulted in improved system efficiency and better on-farm management of water. The addition of telemetric data transfer means that landholders can access up to date and relevant account information which improves compliance.

SRI was pleased to have the opportunity to meet with the Royal Commission in Deniliquin on 10 April 2018. Following from that discussion, we are pleased to provide the following comments to the Royal Commission.

## Summary

SRI wants to see the implementation of the Basin Plan, with recognition of offsets under the SDLAM to put an end to water reform so we can all focus on stabilising for the future.

The Murray Darling Basin Plan is a significant water reform designed to re-balance river operations and management in the context of a working river system by identifying the long-term sustainable diversion limits.

The Basin Plan is a whole-of-system Plan. It is as much about protecting our local environment as it is about ensuring end of system health. Environmental water management must be about achieving outcomes along the system – including preventing unnecessary bank slumping and silting – as well as delivering flows downstream.

The reform always acknowledged the working river nature of the system and the fact that the system has been modernised through the construction of dams, weirs and barrages.

*“We must also accept that human settlement over the past 200 years has altered the landscapes and placed constraints in the system, which make it physically impossible to return to a natural, pristine environment. So, this Plan is not about returning the rivers to their natural state. It’s about finding the optimal balance between the environment, economies and communities.”* Craig Knowles, MDBA Chair, 2012 (emphasis added).

For water users, that re-balancing has seen significant changes in how we do business and on the businesses we rely on.

The programs designed to implement the Basin Plan, including water recovery programs, have been rolled out inconsistently across the Basin. In some cases current operating rules have been ignored with the Basin Plan designed based on modelling that assumed a regulatory scenario that did not exist.

Impacts have varied across the Basin. The reduction of water available in the consumptive pool has led to higher water prices on both the permanent and temporary markets. There has been restructure of industries particularly in the dairy and rice industries which has flow-on impacts for processing and milling. Irrigation infrastructure operators (IIOs) are now delivering less water but have the same network operating and maintenance costs which are passed on to the remaining farmers. Meanwhile greenfield sites are being developed with little regard for water access and deliverability.

At the same time, there is no clear end to the reform. Basin states must be SDL compliant by 2019 however final calibration of compliance will not occur until 2024. The SDL Adjustment Mechanism (SDLAM) has the potential end the need for further water acquisition to meet the 2,750GL recovery target yet the Basin Plan allows for a further 450GL to be acquired up to 2022 based on a very loose test for social and economic neutrality.

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<sup>1</sup> Delivering a healthy working Basin, MDBA, April 2012, Foreword.

Based on the discussion in Deniliquin, SRI provides these further comments to the Royal Commission.

## 1. Windsor Report

In 2010 following the strong community reaction to the release of the *Guide to the proposed Basin Plan*<sup>2</sup>, the House of Representatives Standing Committee on Regional Australia established an inquiry into the impact of the Guide to the Murray Darling Basin Plan. The report, commonly known as the Windsor Report, released May 2011 listed 21 recommendations to deliver a balanced Basin Plan, some of which can be seen in the final Basin Plan approved in November 2022.

Tellingly, however, a key recommendation was not adopted which has been the basis for ongoing frustration at a community level.

*“The Committee recommends that they (environmental works and measures and community led proposals) be explored prior to considering any reduction in productive water allocation,” - Tony Windsor, foreword to *Of droughts and flooding rains: report of the Inquiry into the impact of the Murray Darling Basin Plan*, May 2011.*

Unfortunately for many regions, not only did this recommendation fall on deaf ears, it also came too late.

At the same time as the Committee reported, the Commonwealth Environmental Water Holder (CEWH) was reviewing trade arrangements for their already vast water portfolio<sup>3</sup>. Currently in the NSW Murray, the CEWH holds 315GL held as 380,051 general security entitlements. Most recovered through buyback, all recovered from productive use and all having an impact on regional economies contrary to the recommendations of the Windsor report.

## 2. Sustainable Diversion Limit Adjustment Mechanism

*“From the very south to the top of the Basin, the Committee heard of water savings that could be found through environmental works and measures...” – Foreword to the Windsor Report.*

The SDL Adjustment Mechanism (SDLAM) is one of the most crucial components of the Basin Plan in terms of implementation and gives effect to the above observation made by the 2011 Standing Committee on Regional Australia.

During the development of the Basin Plan, the MDBA acknowledged the benefits that can be delivered by works and measures, as indeed they should because they are responsible for the design and construction of many of them under the Living Murray program (TLM).

*“It is noted that TLM environmental works at both Gunbower Forest and Koondrook-Perricoota Forest/Hattah Lakes/Riverland-Chowilla floodplain (built, under construction and/or proposed) could assist with meeting environmental outcomes through the delivery of water through works instead of through the delivery of high flows.”<sup>4</sup>*

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<sup>2</sup> MDBA, October 2010

<sup>3</sup> <http://www.environment.gov.au/water/cewo/publications/discussion-paper-trading-cew>

<sup>4</sup> *Hydrologic modelling to inform the proposed Basin Plan: methods and results*, MDBA, February 2012

The amendments associated with the SDLAM are currently before Parliament and the Greens have moved a motion to have them disallowed in the Senate.

The projects combine environmental works and measures with adaptive management of our rivers to get better ecological outcomes from held environmental water while providing certainty for the river and river communities.

The development of the amendments follows years of consultation and negotiation across Basin States, peer review of methodology by the CSIRO and State agencies finally leading to agreement by the Murray Darling Basin Ministerial Council on 16 June 2017<sup>5</sup>.

The NSW government has said it will consider withdrawing from the Basin Plan if the Federal Parliament or any other jurisdiction fails to deliver on earlier commitments to support the full suite of SDLAM projects<sup>6</sup>.

The risk of the SDLAM amendments being rejected, or the projects not delivering on the assumed offsets lies squarely on irrigation communities that will see Governments return with the cheque-book in an effort to acquire water to meet the Basin Plan targets.

However, the greater risk is to the environment that will not get the benefit of better environmental water management if these projects and associated rule changes and constraints management are not delivered.

*“...the projects tied to the amendment will improve our ability to achieve the Basin Plan's intended environmental outcomes. This is because water alone is not enough to achieve environmental change of the magnitude needed to secure the future health of the Basin system.”*  
– MDBA CEO, Phillip Glyde, April 2018<sup>7</sup>

### 3. Water recovery

Buyback, was the predominant form of water recovery until 2011. The Windsor report made the following recommendation in May of that year:

*“That the Commonwealth Government immediately cease all non-strategic water purchases in the Murray-Darling Basin and take a strategic approach to water purchases that prioritises the lowest possible impact in communities.”* Recommendation 7.

That same year the MDBA made the following recommendation which has appears to have led Government water recovery strategies since 2012.

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<sup>5</sup> <https://www.mdba.gov.au/media/mr/communique-murray-darling-basin-ministers-agree-next-steps>

<sup>6</sup> <https://www.industry.nsw.gov.au/media/media-releases/2018-media-releases/people-over-politics-to-save-basin-rivers>

<sup>7</sup> <https://www.mdba.gov.au/media/mr/basin-plan-amendments-critical-delivery-environmental-outcomes>

*“The Authority believes that as much water as is sensible should be recovered through investment in water saving infrastructure or through other mechanisms, which minimise any negative social and economic costs.”* MDBA<sup>8</sup>.

According to the Department of Agriculture, recovery through buyback represents almost 60% of all water recovered in the Basin to date and over 62% of water recoveries in the NSW Murray.<sup>9</sup>

Most of this purchase was indiscriminate purchasing of entitlement with no plan, no consideration of rules pertaining to the entitlement nor of the capacity to deliver that entitlement to where it was intended to be used. As a result, the Basin Plan, not finalised until 2012, incorporates a list of pre-requisite policy measures and a requirement for constraints management in an effort to make the rules fit the recovery rather than have had the recovery fit the rules.

While some, particularly from the environment lobby, believe buyback is the cheapest form of water recovery<sup>10</sup>, however, that is only true if you ignore the flow on impacts of water recovery. In 2011, the MDBA realised there was a down-side:

*“However, if farmers sell all of their water and stop irrigating, it can have flow-on effects for communities and industries that support and rely on irrigation farming.”*<sup>11</sup>

Buyback in joint schemes such as Murray Irrigation has a compounding factor as the Company adjusts to deliver less water. Murray Irrigation reports that around 27% of its water licence has been recovered for the environment leading to a decline in average annual water deliveries to customers. This has impacted on customers to changes in fees and prices.

The key issue with buyback is that it is a simple transfer of water out of the productive pool. There is no obligation or incentive for the seller to continue to use the irrigation scheme. The alternative, on-farm infrastructure, is an investment in maintaining productivity – albeit using less water. Therefore, irrigators are inclined to realise a return on their investment and will continue to use the irrigation network.

While groups like the Wentworth Group will argue that buybacks are the cheapest form of water recovery<sup>12</sup>, that statement only holds true if \$/ML is the only factor to be assessed. We believe the intent of the Water Act 2007 requires the Basin Plan and associated water recovery to be conducted in a way that considers cost on productivity and social outcomes and follows the path of least detriment.

*“...to promote the use and management of the Basin water resources in a way that optimises economic, social and environmental outcomes.”* Water Act 2007<sup>13</sup>.

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<sup>8</sup> *Delivering a healthy working basin*, MDBA, November 2011, p44.

<sup>9</sup> <http://www.agriculture.gov.au/SiteCollectionDocuments/water/progress-towards-bridging-gap.pdf>

<sup>10</sup> <https://theconversation.com/the-murray-darling-basin-plan-is-not-delivering-theres-no-more-time-to-waste-91076>

<sup>11</sup> *Delivering a healthy working basin*, MDBA, November 2011, p44

<sup>12</sup> <https://www.farmonline.com.au/story/4758309/purse-string-appeal-basin-water-buyback-push/>

<sup>13</sup> Chapter 3 – Objects, Section 3(c), Water Act 2007 (Cth)

## 4. Constraints

*“In setting environmental water requirements, the Authority recognised the need for environmental water to be used within the current river management rules and entitlements.”*  
MDBA, 2011<sup>14</sup>.

This was the assertion made to Basin communities and it was with this understanding that stakeholders participated in the process in good faith; however, this was not how the Basin Plan was developed.

The hydrologic modelling to inform the Basin Plan, released by the MDBA in 2012, assumed flows downstream of Yarrowonga of 40,000ML/day<sup>15</sup>, well in excess of current operating conditions and the natural Barmah Choke capacity of 8,000ML/day.

Further, the Basin Plan modelling assumed rules that were not (and are still not) implemented. As such, the Basin Plan was written to require “pre-requisite policy measures” (PPMs) be adopted to ensure the modelling is relevant. What they did not consider is the potential for these PPMs to negatively impact on the accessibility and reliability of existing water entitlements.

For example, current rules require that environmental water can go into Barmah Forest, but any flows that return to the river downstream are then re-socialised and can be used to meet downstream demand. This limits the amount that is required to be released from upstream storages.

The MDBA and WaterNSW are currently trialling return flows through the system, which will deliver on the PPM for environmental water reuse<sup>16</sup>. What is not clear is what impact this has on storages and therefore allocations, including allocations held by the environment. Nor is it explained the impact the practice will have on capacity sharing constraints such as the Barmah Choke.

The constraints management strategy was also written into the Basin Plan after it became apparent (through stakeholder feedback) that flows described in the modelling underpinning the Basin Plan would cause floods over privately held and productive land as well as potentially impact on public infrastructure. This therefore raises the issue of liability. The following questions need to be resolved before environmental water managers can release flows anywhere near those identified in the Basin Plan modelling:

- Liability if a managed environmental watering event resulted in damage to public infrastructure;
- Liability if a regulated environmental watering event was followed by a natural event that was worse due to the pre-watered condition of the catchment;
- Liability for damage to crops or livestock as a result of a managed environmental watering event.

The key to progressing constraints management is to ensure landholders and Local Government can be confident that the issue of liability is covered and agreement and compensation for land impacts is negotiated so that negative third-party impacts are mitigated. However, if these issues are not resolved the capacity for the Basin Plan to deliver on its environmental targets will be severely restricted, if achievable at all.

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<sup>14</sup> *Delivering a healthy working basin*, MDBA, November 2011, p25.

<sup>15</sup> *Hydrologic modelling to inform the proposed Basin Plan: Methods and results*, MDBA, February 2012, p207.

<sup>16</sup> <http://www.environment.nsw.gov.au/research-and-publications/publications-search/flow-management-in-the-southern-connected-basin>

## 5. Over allocation

During the Millennium Drought, general security water allocations in the NSW Murray were at zero percent of entitlement for two consecutive years. That is irrigators in the NSW Murray had no water. The rice crop was virtually non-existent (a handful of farmers pooled resources and ground water). This was not because the system was over-allocated, it was because it did not rain. From 1999-2009 Murray system inflows were below average for nine out of 10 years<sup>17</sup>.

In 2006/07 the system recorded the lowest ever inflow on record which was below the annual entitlement volume for South Australia. Despite this, river operators, with state cooperation were able to keep water flowing the entire length of the Murray to the upper reaches of the Lower Lakes.

In a submission to the 2011 Senate Legal and Constitutional Affairs Committee review of the Water Act (Attachment A), international water policy expert, the late Professor John Briscoe observed:

*“What is obvious to me is that the overwhelming factor behind the dismal situation in the MD Basin was the dramatic reduction in rainfall and even larger reduction in river flows. It is equally clear to me that the Institutional Response (of the Murray Darling Basin Commission, the basin states, and farmers) was extraordinarily innovative and – within the bounds set by nature – effective.”*

Other than South Australia, all States have developed multiple water entitlement products with different reliability factors to suit Australia’s highly variable rainfall and the operating systems of the area. In unregulated systems these entitlement products are based on stream-flows. In regulated systems they are based on the ability to allocate water held in storage.

South Australia has one type of irrigation entitlement on the Murray which was developed consistent with the fact that the State has highly reliable system inflows. Other than years of system-wide low inflows, South Australia has guaranteed minimum inflows through the entitlement agreement outlined in the Murray-Darling Agreement<sup>18</sup>. Despite this convenience, South Australia is demanding upstream states sacrifice more water to underpin the “health” (operation) of the Lower Lakes and Coorong – at the same time, they continue to defer their own entitlement flow for future consumptive needs<sup>19</sup>.

As at March, South Australia had deferred 232GL of their entitlement<sup>20</sup> instead choosing to hold it in storage. Despite having a desalination plant, largely federally funded, they continue to maintain they need to hold water for critical human needs in upstream storages. They have made these decisions regardless of requests from the CEWH not to do so to support the goals of the Basin Plan.

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<sup>17</sup> River Murray System Drought update, June 2009, MDBA

<sup>18</sup> Schedule 1, Water Act 2007 (Cth)

<sup>19</sup> <https://www.waterconnect.sa.gov.au/River-Murray/SitePages/River%20Murray%20Flow%20Reports.aspx>

<sup>20</sup> <https://www.waterconnect.sa.gov.au/Content/Flow%20Reports/DEWNR/RM-Flow-Report-and-WR-Update-20180316.pdf>

## 6. Downstream demand

The establishment of the water market has had positive and negative outcomes for irrigation regions. The market establishes a property right for water which has long been called for by irrigators. However, the separation of land and water has enabled water to be transferred out of irrigation districts to their detriment.

Perversely what has occurred is a shift of water from established irrigation districts with associated infrastructure to greenfield sites without consideration for deliverability within the operational system.

The focus to shift water to highest value use has moved water away from highly flexible broadacre cropping to high-value yet inflexible permanent plantings. Permanent horticultural developments require water every year – and more water in dry years. Conversely, broadacre irrigated crops such as rice, cereals, maize and cotton are only grown when there is sufficient water available as mentioned above.

SRI attended a National Irrigators' Council meeting in Dubbo in February 2018 where MDBA River Murray Operations gave a presentation about the risks presented by the shift of water from established irrigation areas to downstream sites. The example given was the fact that Goulburn River entitlements (below Choke) have been purchased by developments downstream on the Murray. Previously volume on these entitlements would be delivered within the Goulburn River. Now, however, they are transferred for delivery downstream despite an end-of-system constraint.

SRI holds grave concerns that the result of downstream development could be the application of delivery restrictions across all water users if demand exceeds capacity at any given time. To this end, the current allowance for trade restrictions associated with physical capacity to deliver must be maintained.

## 7. The definition of social and economic neutrality

As irrigators operating in a joint scheme, we understand all too well the reality of the flow-on impacts of water recovery, mentioned previously.

Under the Basin Plan, it is assumed that an individual's voluntary participation in an efficiency program is evidence of neutral or beneficial social and economic outcomes<sup>21</sup>. What this overly simplistic definition fails to acknowledge is the cumulative impacts that result from a reduced volume of water available for consumptive use.

In 2015, Murray Irrigation analysed the impact of water recovery on their business and the business adjustments the Company must make to ensure financial sustainability over the long-term for a submission to the Senate Select Committee reviewing the Impact of the Basin Plan.

*“Our analysis shows that the reduction in consumptive water entitlements in our region impacts on our on-farm deliveries which is the activity that underpins the financial sustainability of our business. It clearly shows that regardless of an individual's participation in water recovery programs, there is an impact on their business if they are located within a group scheme”.*<sup>22</sup>

<sup>21</sup> Basin Plan, MDBA, 2012, Chapter 7, Section 7.17(2)

<sup>22</sup> [https://www.aph.gov.au/Parliamentary\\_Business/Committees/Senate/Murray\\_Darling\\_Basin\\_Plan/murraydarling/Submissions](https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Murray_Darling_Basin_Plan/murraydarling/Submissions) submission number 224.1

The cumulative impact and broader regional impacts were acknowledged by Ernst and Young in their 2017 report to the Basin Ministerial Council:

*“There is evidence to suggest that past programs of water recovery and on and off-farm water efficient infrastructure have affected irrigators, irrigation networks, communities and the Basin as a whole. These impacts vary in their magnitude, timing and nature and have complex interrelations with other changes occurring such as demographic, industry and climatic changes.”<sup>23</sup>*

SRI submits that the definition of social and economic neutrality must be expanded to a regional scale, particularly within group schemes to prevent exacerbating issues already being faced by these regions.

Further, Governments must be willing to identify efficiency measures outside the consumptive agricultural pool. Ernst and Young observed that there are water savings to be found through urban and industrial users. Agriculture has done all of the lifting with regards to water recovery to date and it is time other users and industries contributed to the Basin Plan that was sold as essential for the health of the entire nation.

## 8. Northern Basin Review

SRI refers the Royal Commission to the open letter signed by industry representatives imploring the Senate not to support the disallowance motion that saw the Northern Basin Review rejected by Federal Parliament. (Attachment B)

The disallowance debate was a classic example of politics getting in the way of good policy. Ironically, many of the Senators speaking in support of the disallowance were expressing concern that environmental flows were not protected throughout the system; yet the intergovernmental agreement drafted to give effect to the northern basin review across jurisdictions was designed to do just that. By disallowing the amendments, the Senators rejected the tool-kit measures that included environmental flow protection.

The key to progressing constraints is to ensure landholders and Councils are confident that the issue of liability is covered and agreement and compensation for land impacts is negotiated so that negative third-party impacts are mitigated.

## 9. Compliance

SRI refers the Royal Commission to our submission to the NSW Water Reform Action Plan discussion paper on metering and measurement.

SRI members have been metered since the development of the Murray Irrigation scheme. As mentioned in our background, since 2012 Murray Irrigation have been upgrading all farm outlets to telemetric meters verified to +/-2.5% accuracy.

Accurate measurement of water resources is vital to operating an efficient and effective system. SRI supports the use of effective measurement and metering to improve resource management and

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<sup>23</sup> Analysis of efficiency measures in the Murray-Darling Basin: Opportunities to recover 450GL in additional environmental water through efficiency measures by 2024, with neutral or positive socio-economic impacts, p 65

underpin public confidence in our river management. Metering requirements should apply consistently across NSW and other States and across all water users, including the environment. Therefore, the environmental use must be held to the same measurement standards and accountability as other water users.

The key compliance issue under the Basin Plan is compliance with the SDLs. The MDBA must monitor and ensure water take in each WRP area is compliant with the SDLs. It is then up to the States to ensure individuals comply with rules under the WSP.

The most important thing for irrigators is to have a clear understanding of who is responsible for what and to know the reporting chain, know where to get information about compliance and know how to report concerns.

In NSW irrigators pay for compliance activities and we expect a comprehensive compliance regime. While recent allegations of non-compliance are concerning, we are pleased to see the NSW Government taking steps to improve and enhance compliance. We do not, however, accept that this should come at any extra cost to irrigators.

## Conclusion

SRI is committed to sustainable and efficient farming practices that leave our land and environment in better condition for the next generation. We support a Basin Plan that strives to achieve a triple bottom line.

The Basin Plan is for the whole Basin. It is not for the whole Basin to deliver to the end of the Basin. We love our environment and our river just as every other river community in the Basin does and we do not want to see our environment or industries sacrificed for one end goal.

The current Basin Plan is not perfect, but if the SDLAM is adopted and all States commit to reviewing their own system operations to consider water saving options for the future, the Basin will be more resilient for the future. This means looking at the top and bottom of the system.

# Attachment A:

## Open letter to Parliament

### Our River needs certainty

We, the people of the Murray-Darling Basin, the people who live in the Basin, work in the Basin and care for the Basin, call on our State and Federal politicians to put politics aside and focus on outcomes to give our river systems certainty for a sustainable future.

The Murray-Darling Basin Plan was written in a way to allow adaptive management, with enough flexibility to utilise new knowledge and to adjust operational management of our rivers to get better ecological outcomes from held environmental water while eventually providing certainty for the river and river communities.

This is what was written into the original Plan by Tony Burke in 2012 and it is what the Ministerial Council worked towards and finally agreed on in 2017.

While not everyone in the Basin likes the Plan, everyone has been working towards achieving it and delivering a balanced plan.

Today that hangs in the balance and we are concerned that we are on the verge of seeing the efforts of many thrown away compromising future environmental outcomes.

Both the Northern Basin Review (NBR) and the Sustainable Diversion Limit Adjustment Mechanism (SDLAM) have been designed to require changes to system management to ensure environmental outcomes can be maximised.

In the north that means developing rules to ensure environmental water is protected through the system. Known as “toolkit” measures, the states have prepared a schedule to the Basin Plan Intergovernmental Agreement (IGA) to be implemented once the amendment is passed – but it is dependent on the amendment.

In the south the proposed adjustment projects include rules to enable environmental water to be used at multiple sites and consultation to address physical and regulatory impediments (constraints) to delivering higher connective flows.

With these changes, the Commonwealth Environmental Water Holder can effectively manage the water portfolio to maximise outcomes and make a real difference to improving the ecological sustainability of our rivers.

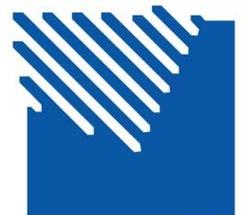
Without these changes, all the Basin Plan will achieve is a volume of water that cannot be effectively delivered. Billions of tax-payer dollars spent on a number.



COTTON AUSTRALIA



NSWIC



NEW SOUTH WALES IRRIGATORS' COUNCIL



Murrumbidgee Private Irrigators



**Don't let our faith be destroyed.**

**Don't risk changes that support a sustainable Basin.**

**Don't risk environmental outcomes.**

**Don't disallow the NBR or the SDLAM.**

Yours faithfully

Tony Mahar, National Farmers Federation: 0418 259 545

Steve Whan, National Irrigators' Council: 0429 780 883

Michael Murray, Cotton Australia: 0427 707 868

Stuart Brown, Bega: 0408 580 350

Tim Napier, Border Rivers Food and Fibre: 0448 713 886

Mark McKenzie, NSW Irrigators' Council: 0412 075 245

Iva Quarisa, Murrumbidgee Private Irrigators: 0402 069 643

Gabrielle Coupland, Southern Riverina Irrigators: 0407 262 780

13 February 2018



**National Farmers'**  
FEDERATION



**National  
Irrigators'  
Council**



**COTTON  
AUSTRALIA**



**NEW SOUTH WALES  
IRRIGATORS'  
COUNCIL**



Murrumbidgee Private Irrigators



# Attachment B:

## HARVARD UNIVERSITY



SCHOOL OF ENGINEERING  
AND APPLIED SCIENCES



SCHOOL OF  
PUBLIC HEALTH



KENNEDY SCHOOL  
OF GOVERNMENT

***John Briscoe***

*Gordon McKay Professor of the Practice of Environmental Engineering*

February 24, 2011

The Secretary  
The Standing Committee on Legal and Constitutional Affairs of the Senate  
Canberra  
Australia

Dear Sir/Madam:

Thank you for your invitation (email from the Secretary of, dated 14 February 2011) to make a submission to the Inquiry into provisions of the Water Act 2007

Why I make this submission:

For many years I was the Senior Water Advisor at the World Bank. In that capacity I visited Australia in 1996 and became interested in the emerging Australian experience with water management, especially in the Murray Darling Basin. Over the intervening period I have followed developments closely, have visited Australia several times, and interacted with many Australian water professionals, in Australia and overseas.

Two years ago I left the World Bank to assume a position as Gordon McKay Professor of Environmental Engineering at Harvard University, where I direct the Harvard Water Program. In 2010 I visited Australia three times – one as a member of the High-Level External Review Panel convened by the MDBA to review the draft Guide to the Basin Plan; one to work with the National Water Commission, and once as part of the Harvard/University of Melbourne/Monash/Committee for the Economic Development of Australia water collaboration. I have followed developments relating to the Water Act 2007 very closely.

So I am a very interested outsider, who surely has many of the details wrong. If there is a value to my observations it comes from the fact that I have been privileged to see many reform processes in many countries, and have developed a nose for sniffing out the story.

Why do I care?

I care for two reasons. First, because I have many Australian friends and want what is good for them and your wonderful country. Second, because what happens in Australia matters hugely to the rest of the world.

### Perceptions and Facts

The Harvard historian David Blackbourn writes in his great book “The Conquest of Nature” of the dialectic of water challenges and responses. He describes how all water solutions are provisional, how each succeeding generation takes for granted the achievements of their fathers and forefathers, and how contemporaries always wonder how those who went before could have been so short-sighted and stupid.

There is no better illustration of this difference of perception than the situation of water management in Australia. Over the last 10 years Australia did something which no other country could conceivably have managed – in a large irrigated agricultural economy (the Murray Darling Basin) a 70% reduction in water availability had very little aggregate economic impact. Before the butts and the butts and the butts, this extraordinary achievement is, in my view, the single most important water fact of the 21<sup>st</sup> century, because it shows that it is possible (with ingenuity and investment) to adapt to rapid climate change and associated water scarcity.

What has been very striking to me on my visits to Australia, is how dramatically this perspective is different from the political and public perception, which is largely that “we have done a terrible job”. Again and again I had to confront this “truism” in discussions in Australia. After all these discussions I concluded that there was a fatal misdiagnosis of “the problem”. If one can conceive of a simple (and simplistic) equation in which:

Outcome = f(Exogenous Change, Institutional Response);

90% of the political and public blame was placed on “institutional response”. To cite just two (important) examples: The Honorable Malcolm Turnbull, author of the Water Act 2007 claims that “our water management has been extraordinarily ill informed in years past” (<http://www.malcolmturnbull.com.au/blogs/the-water-act-and-the-basin-plan>) and the MDBA’s ill-fated Guide to the Basin Plan asserts that “over the past few decades....the focus has swung to looking at economics ...and the role of the environment has been overlooked.”

I found (and find) this diagnosis (a) extraordinarily widespread and (b) extraordinarily erroneous. What is obvious to me is that the overwhelming factor behind the dismal situation in the MD Basin was the dramatic reduction in rainfall and even larger reduction in river flows. It is equally clear to me that the Institutional Response (of the Murray Darling Basin Commission, the basin states, and farmers) was extraordinarily innovative and – within the bounds set by nature – effective. Not only for the economy but, as shown by the National Water Commission, for ameliorating the environmental damage of the terrible drought.

### The Politics of the Water Act 2007

In the course of my visits and in my reading, I have come to see opportunistic politics as a major factor in the development of the Water Act of 2007 and the current impasse. Of course I know much less about this than any of the esteemed members of your committee, but because this perception underlies my analysis, let me summarize this understanding briefly.

The environmental vote was important in the election of 2007. After seven years of drought environmental conditions were poor, not least in the Murray Darling Basin. The electoral arithmetic of Australia is such that most of the electorate live in the coastal cities. Most city dwellers have both little knowledge of the land and water environment of the world's driest continent, and a paternalistic and dim view of farmers and agriculture. He who could capture the environmental vote would strongly improve his chances in the election. Most environmental-minded voters were Labour. If the Liberal Party were to woo some away it had to do something dramatic. The Water Act of 2007 was one of the dramatic efforts.

The Act was hatched in a very short time, with very little consultation with any of Australia's great water professionals or its innovative farmers. (By the way, in the eyes of this observer at least, the smart city dwellers had been far less innovative vis-a-vis water than their dim-witted country cousins.)

In the eyes of the architects of the Water Act, it was necessary to take power away from those who had made a mess of things (the States and farmers) and put it in the hands of the enlightened in Canberra. A major challenge was how to deal with the matter of the Constitution, which had given the states powers over water management, and which underpinned the inter-state consensual processes which had been the institutional bedrock of the MDB Commission. The primary author of the 2007 Act, the Honorable Malcolm Turnbull, is quite explicit about this. *"In the 1890s our founding fathers missed a big opportunity when they drafted our Constitution in not putting the management of interstate waters under federal jurisdiction. In 2007 we rectified that mistake with the Water Act"* (Malcolm Turnbull "The Water Act and the Basin Plan, December 9, 2010, <http://www.malcolmturnbull.com.au/blogs/the-water-act-and-the-basin-plan/>).

Because constitutional amendments are, not simple, and definitely cannot be done over a weekend before an election, the authors of the Water Act 2007 had to find legal cover for usurping state powers. An alert and enterprising environmental lawyer found the fig-leaf, which was the Ramsar Convention, which the Commonwealth Government had signed, committing itself to protecting wetlands which are critical for migratory birds.

To avoid a constitutional crisis, the Commonwealth had to build the Water Act around this fig-leaf. So the Act became an environmental act, which was all it really could be, since it was in the name of the commonwealth's obligations to an obscure international environmental convention that it was taking powers from the states.

And so the fundamentals of the Act were born – an environmental act in which Canberra would tell states and communities and farmers what to do.

The substance of the Act: 1 Federal and State responsibilities

The framers of the Water Act 2007 had not read their Churchill. Democracy is, indeed, the worst form of government, except for all those other forms that have been tried from time to time. Yes, the consultative, participatory model of the MDB Commission did have its flaws, because consensus was difficult and often slow. But it is now obvious that the commonwealth-bureaucrats-and-scientists-know-better-than-states-and-communities-and-farmers-do model has, once again, proved to be much worse and even much slower.

The highly secretive “we will run the numbers and the science behind closed doors and then tell you the result” MDB Basin Plan process was not, in my view, an aberration which can be pinned entirely on the leadership of the MDBA Board and management, but intrinsic to the institutional power concentration that is fundamental to the Water Act 2007.

### The substance of the Act 2: Balance between the environment and human uses

There are claims that the Water Act of 2007 was not an environmental act but one that mandated balance between the environment and human uses. Digging deep into the turgid 236 pages of the Water Act for confirmatory phrases, the Honorable Malcolm Turnbull claims, now, that the Act was all about balance.

To a disinterested reader this is poppycock. The National Productivity Commission’s interpretation of the Water Act (2007) is that “*it requires the Murray-Darling basin Authority to determine environmental water needs based on scientific information, but precludes consideration of economic and social costs in deciding the extent to which these needs should be met*”. Similarly, the High-Level Review Panel for the Murray Darling Basin Plan (of which I was a member) stated that “*The driving value of the Act is that a triple-bottom-line approach (environment, economic, social) is replaced by one in which environment becomes the overriding objective, with the social and economic spheres required to “do the best they can” with whatever is left once environmental needs are addressed.*”

This interpretation was also very clearly (and reasonably, in my view) the interpretation taken by the Board and Management of the MDBA in developing the Guide to the Basin Plan. This was transmitted unambiguously to the members of the High-Level Review Panel for the Murray Darling Basin Plan.

(As an aside, I have wondered whether this logic is derived from (a) a belief that this is the right thing to do or (b) an understanding that this was the only constitutionally-defensible approach given that state powers were being abrogated in the name of meeting the Commonwealth’s Ramsar obligations.)

### The substance of the Act 3: The roles of science and politics

The Act is based on an extraordinary logic, namely that science will determine what the environment needs and that the task for government (including the MDBA) is then just to “do what science tells it to do”.

In the deliberations of the High Level Review Panel, we pointed out that, taken literally, this would mean that 100% of the flows of the Basin would have to go to the environment, because the native environment had arisen before man started developing the basin. The absurdity of this point was to drive home the reality – that the Murray is one of the most heavily plumbed river basins in the world, and that the real choice was to decide which set of managed (not natural) environmental (and other) outcomes were most desirable.

The job of science in such an instance is to map out options, indicating clearly the enormous uncertainties that underlie any scenario linking water and environmental outcomes. In its final report, the High-Level Review Panel stated:

*Far from being “value neutral”, a set of value judgements are fundamental to the aspirations of all Acts, including the Water Act. .... It is a fundamental tenet of good governance that the scientists produce facts and the government decides on values and makes choices. We are concerned that scientists in the MDBA, who are working to develop “the facts”, may feel that they are expected to trim those so that “the sustainable diversion limit” will be one that is politically acceptable. We strongly believe that this is not only inconsistent with the basic tenets of good governance, but that it is not consistent with the letter of the Act. We equally strongly believe that government needs to make the necessary tradeoffs and value judgements, and needs to be explicit about these, assume responsibility and make the rationale behind these judgements transparent to the public.*

#### The process of formulating the Basin Plan

In all of my years of public service, often in very sensitive environments, I had never been subject to such an elaborate “confidentiality” process as that embodied in the preparation of the Guide to the Basin Plan. The logical interpretation was that the spirit of the Water Act of 2007 (environment first, science will tell, the Commonwealth government will decide, the people will obey) required such a process. The High-Level Panel told the Chair and CEO of the MDBA that they understood that this was what the Act dictated but that it was the role of senior civil servants to explain that this would not, and could not, work. We were given to believe that there was no appetite for such a message at higher levels in the government in Canberra.

A corollary of this flawed process (and the ideas incorporated into the Act) was that there was very little recourse in the process to the immense, world-leading knowledge of water management that had developed in Australia during the last 20 years. Time and again I heard from professionals, community leaders, farmers and state politicians who had made Australia the widely-acknowledged world leaders in arid zone water management that they were excluded from the process.

#### Investments in water-saving infrastructure

A major complementary program for implementing the Water Act is the massive water infrastructure program. Indeed, the Honorable Malcolm Turnbull believes that *“the real problem is (not the Water Act) but that the Labor Government has failed to invest in the water-saving*

*infrastructure that was the centerpiece of the Howard Government's National Plan for Water Security".*

In my visits to Australia I heard a chorus of opposition from economists about what they considered to be program which paid a massive amount for every drop of water saved.

In my perception this program has been badly thought through. The economists are largely right – this is a very expensive way to save water and that many of the investments will be made in areas that will, sooner or later, go out of production.

But they also note that this is a “bribe” to farmers for the implicit breach of contract by the Federal Government. If this is the case, then the question should be approached differently.

For example, it seems highly probable that world food prices will continue to increase sharply in coming decades. Australia has developed great expertise in sophisticated and high-valued agriculture. This national asset is, it would seem to me, to be something that Australia would want to preserve and hone. If there were a clear vision for “the future of Australian agriculture in a changing world”, and a clear definition of the areas where Australia has a comparative advantage, then investing in modernization of the Australian agricultural economy might be a high-return use of public funds. This is quite different from a fund for “saving water” – it would be an investment in productivity and an investment in a strategic Australian capability. In my view a plan for water cannot be done in isolation from this complementary bit of strategic analysis.

My conclusion:

Let me first repeat what I said at the beginning of this note. I am an outsider. I am flattered to be asked to share my views with your Commission of Inquiry. I am fully aware that there are likely to be many details that I have not got right. But I have worked on water policy issues in dozens of countries and have developed an instinct for what is central. I may have some notes wrong, but believe strongly that I am playing from the right hymn-book.

My conclusion is stark. I believe that the Water Act of 2007 was founded on a political deception and that that original sin is responsible for most of the detour on which Australian water management now finds itself. I am well aware that unpredictability is an enemy and that there are large environmental, social and economic costs of uncertainty. But I also believe that Australian cannot find its way in water management if this Act is the guide. I would urge the Government to start again, to re-define principles, to engage all who have a stake in this vital issue, and to produce, as rapidly as possible, a new Act which can serve Australia for generations to come. And which can put Australia back in a world leadership position in modern water management.

Yours sincerely

