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# Speak Up Campaign

*Submission*

***Draft Report***
***Murray Darling Basin Plan: 5 Year Assessment***

**Key Points**

- Overall support the findings and recommendations of the Productivity Commission
- NSW Murray was not historically poorly managed
- Water Markets while now being fluid, lack transparency and have now priced many food producers out of the market, even when dams are considerably full
- Socio-economic impacts far exceed those estimated
- Failure to recognise the negative environmental outcomes
- Use the opportunity to make the 'stitch in time' changes needed to prevent further damage to communities, people and the environment

**Recommendations**

- Suspend further water recovery
- Extend unrealistic time frames
- Introduce an adaptive and flexible approach to all aspects of the Basin plan
- Refer to Balancing the Impacts of the Basin Plan document

## Introduction

The Speak Up Campaign are grateful for the opportunity to be able to make a submission to the Productivity Commission regarding the Murray Darling Basin Plan: Five year assessment. Having become incorporated this year Speak Up is a voice for rural communities, with a growing membership of over 110 members, who include business, local councils and individual members.

To begin we would like to acknowledge that it has come as a relief to those most greatly impacted by the implementation of the Basin Plan that the draft report has recognised the failings of the Basin Plan and those charged with implementing it, the Murray Darling Basin Authority (MDBA). While regional communities have acknowledged the need for a plan, the current targets are ill guided, based on poor modelling, flawed assumptions and ideology that has seen the communities (and their environment) we represent greatly and unfairly impacted.

## Historic Water Management

While our members agree with the majority of the findings and recommendations of the draft report we would like to highlight two statements which we feel need correcting. Firstly the third dot point in the Key Points on page two states "Recovery of water entitlements to bridge the gap between poorly-managed historical use and the new Sustainable Diversion Limits is almost complete."

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The Murray, particularly the NSW Murray Valley is a highly regulated system. Our region has a long history of water sharing agreements and programs which have ensured that water use has been respectfully managed. Water sharing rules are set in place to ensure that critical human needs, along with allocations for South Australia, permanent plantings and the environment are placed well ahead of food and fibre producers in the Murray Valley. There are regulations which prevent certain crops being grown on certain soils, also rules limiting the amount of water which can be used per hectare of land owned. Meters have long been in use, ensuring that private water users in the NSW Murray are measured to the cupful.

During the Millennium drought NSW Murray twice received zero percent water allocation, and on three other separate occasions received under 50% allocation, been 10%, 11% and 34%. Anecdotal reports (Here) from those who are fourth and fifth generation farmers along the Murray River in the region, considered the Murray to be running at remarkably high levels at times during the drought. This would suggest that in the Murray Valley, well established water management arrangements were in place, and would not fall into the historically poor as documented by the draft report.

In his submission to the Inquiry into provisions of the Water Act 2007 Prof. John Briscoe (*Gordon McKay Professor of the Practice of Environmental Engineering – Harvard University*) made this, along with many other damning observations of the 2007 Water Act and the subsequent Murray Darling Basin Plan. His submission sends a clear message that "historically poor water management" is subject to opinion and not a blanket statement that can be applied to the entire Basin.

"*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 buts and the buts and the buts, this extraordinary achievement is, in my view, the single most important water fact of the 21st 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*"."[1]

**Water Markets and Trading**

Speak Up can not fully support the other key point "New management arrangements, including those for managing both environmental watering and water trading are in place and are working well."

While trading of water has certainly become more fluid, this has not been to the benefit of those producers who are responsible for the production of our staple foods and fodder. Independent reports have clearly highlighted the direct impact that water recovery through the Basin Plan has had on water markets. An independent report carried out by RMCG found the following impacts on the Murray and Goulburn Valleys

[1] Briscoe submission to the Inquiry into provisions of the Water Act 2007

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- Using the average climatic scenario as the standard reference point, analysis suggests that taking 20% out of the consumptive pool through buyback has led to an average increase in temporary 'allocation' market prices of $70/ML. This is close to doubling what would have been the market price.

- Reducing the size of the consumptive pool by 20% increases prices in average seasons from $130/ML to nearly $200/ML. That increases the number of years when rice-growers will sell rather than grow from 7 years out of 20 to more than 10 years out of 20.[2]

Likewise, an independent report conducted by Aither on water markets in the Southern MDB also concluded that the impact of water recovery by the Commonwealth has been significant, stating –

- Water allocation prices could now be 13 to 36 per cent higher in a moderate allocation season than they would otherwise have been without Commonwealth environmental water purchases (when the price would be $101 per ML). The range reflects the estimates generated using different models, and is consistent with the results of previous analysis (Aither 2016a).[3]

The current drought crisis (2018) being felt across eastern Australia is evident that water management within the Southern Connected System is not working. With hay and fodder stocks exhausted across eastern Australia, hay is being transported from Tasmania and Western Australia while those regions designed specifically to drought proof our nation remain idle. Food and fibre producers in the NSW Murray Valley are on zero allocation, yet our major water storages have a combined volume of 70% capacity (8th October 2018). While there is a significant amount of water available on the water market it is so highly priced that those who produce staples, including hay and other fodder have been priced out of the market. As a result winter cereals which had the potential to provide big yields have largely gone without an irrigation. These crops could have provided grains or hay for starving stock, but that opportunity has been missed.

Additionally, without an allocation and with temporary water prices so high planning of summer crops has become an unviable option for many. Large volumes of water sit in storages, yet those closest to these storages can do nothing to aid fellow farmers in crisis and will be facing financial hardship themselves because they are unable to produce an income. This will have an impact far exceeding the farm gate and will greatly impact employment in the value adding sector, as well as community businesses who rely on the patronage of those reliant on water for their production.

When John Howard addressed the National Press Club on the 25th January 2007 announcing the 2007 water act, he said

"*Water that accrues to the Commonwealth Government through these measures will be managed to restore the health of the rivers and wetlands in the MDB. The counter-cyclical nature of environmental watering will also allow some water to be made available to irrigators during dry periods*."[4]

This commitment to make water available to irrigators during dry periods has not eventuated.

[2] Murray Valley Impact Study - RMCG
[3] Aither Report
[4] National Press Club Transcript

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## Monitoring and Evaluation

We fully support the recommendation made in the draft report that "Basin Governments should substantially revise the Basin Plan Evaluation Framework and develop a monitoring strategy. This will enable the impacts of the Plan to be evaluated and communicated effectively in 2020 and 2025, and the Plan to be reviewed in 2026." Speak Up recommend that a step further be taken and water recovery be suspended until a comprehensive community based monitoring strategy is in place to monitor not only the socio-economic impacts to Basin communities, but importantly the ecological outcomes, both positive and negative from the water which has already been recovered.

**Social and Economic**

Feedback that we have received from the MDBA economist is that socio-economic ramifications of water recovery can take between 4 to 8 years to be realised, and with alarming impacts already being felt by communities further recovery will push many past tipping point.

Many assumptions have been made about the social and economic impacts of the Murray Darling Basin Plan (MDBP) on Basin communities. In the guide to the Murray Darling Basin Plan in 2011 the Murray Darling Basin Authority (MDBA) massively **under-estimated social and economic impacts** when it predicted the loss of $800 million in production and 800 jobs[5]

Furthermore in their 2012 Regulatory Impact Statement "The Authority has found that overall, for the Basin Plan water recovery of 2,750 GL/y, the impacts on the Basin economy will be modest[6]." This statement failed to adequately capture the extent and severity of the risks of the Basin Plan (2750GL) to irrigation dependent communities or include impacts to riparian landholders.

Independent reports, and those conducted by the MDBA have concluded that the socio – economic costs of the Basin Plan are far from modest.

So far the impacts to the Murray Valley Irrigation region alone due to the Basin Plan, as reported by the MDBA, include -

- An economic loss of $120 million at the farm gate.
- 30% decrease in rice production and 21% decrease in dairy.
- Murray Irrigation now delivers on average around 750GL/yr compared with 1,350GL prior to the Millennium Drought[7]
- The decrease in farm gate production flows onto another $77 million loss in value add.
- The loss of a total of 678 jobs, with 471 lost in the contraction of irrigation itself and a further 207 lost due to flow-on effects.[8]
- Berrigan – Finley
    - Decrease in irrigation related employment by 35.4% (FTE)
    - Decrease in agricultural manufacturing employment by 32.1% (FTE)[9]

[5] Guide to the Murray Darling Basin Plan Executive Summary pg xxvii
[6] https://www.mdba.gov.au/sites/default/files/pubs/Basin-Plan-RIS-Nov2012.pdf
[7] Murray Valley Impact Study - RMCG
[8] Media Statement McPherson Media Wrap Around
[9] Southern Basin Community Profiles - May 2018 Berrigan / Finley

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- Wakool
  - Decrease in irrigation related employment by 71.8% (FTE)
  - Decrease in agricultural manufacturing employment by 44% (FTE)
  - Decrease in population 45.6%[10]
- Deniliquin
  - Decrease in irrigation related employment by 73.1% (FTE)
  - Decrease in non - agricultural employment by 16.7% (FTE)
  - Decrease in population 12.2%[11]

**Ecological**

On an ecological side there are large community concerns about the lack of appropriate ecological monitoring programs in place to monitor the value of environmental water events. For example, during the recent 2016 hypoxic blackwater events there was no adequate monitoring programs in place to predict, mitigate and measure the impacts in the Edward – Wakool system. Given that there were two flood events in 2016, in September and October this should have allowed enough time to put adequate monitoring measures in place. However, the event was occurring before anything substantial was done.

Locals who have long experienced flooding, including blackwater events have witnessed an increase in hypoxic blackwater since environmental watering has taken place, and have called for monitoring of flood events so that greater data can be collected. Locals involved in forestry along with riparian landholders believe that recent changes to the management of National Parks have led to an increase in the hypoxic nature of blackwater events. ( 1min 10 secs Here)

Very little to nothing is ever published by the MDBA about the unintended consequences of floodplain inundation, such as carp breeding and proliferation of invasive species at a basin scale. The most recent science indicates that re-inundation of wetlands in the basin directly after a carp breeding event will significantly increase carp numbers and their ability to maintain high populations. Recent water delivery after the 2016 large flooding events shows this is not considered adequate.

Research completed by the Arthur Rylah Institute for Environmental Research (ARI) '*Managing Flows and carp - Technical Report Series No. 255*'[12] provides evidence for why increased environmental flows that re-inundate wetlands, including the Lower Lakes will result in significant breeding of carp, and allow for movement of now trapped populations back into the main river system.

The graph below (Figure S1) clearly shows that carp populations increase substantially if adjacent wetlands are inundated in consecutive years, and this is the accentuated if following a large unregulated flood event

[10] Southern Basin Community Profiles - May 2018 Wakool
[11] Southern Basin Community Profiles - May 2018 Deniliquin
[12] https://www.researchgate.net/publication/301294558_Managing_Flows_and_Carp

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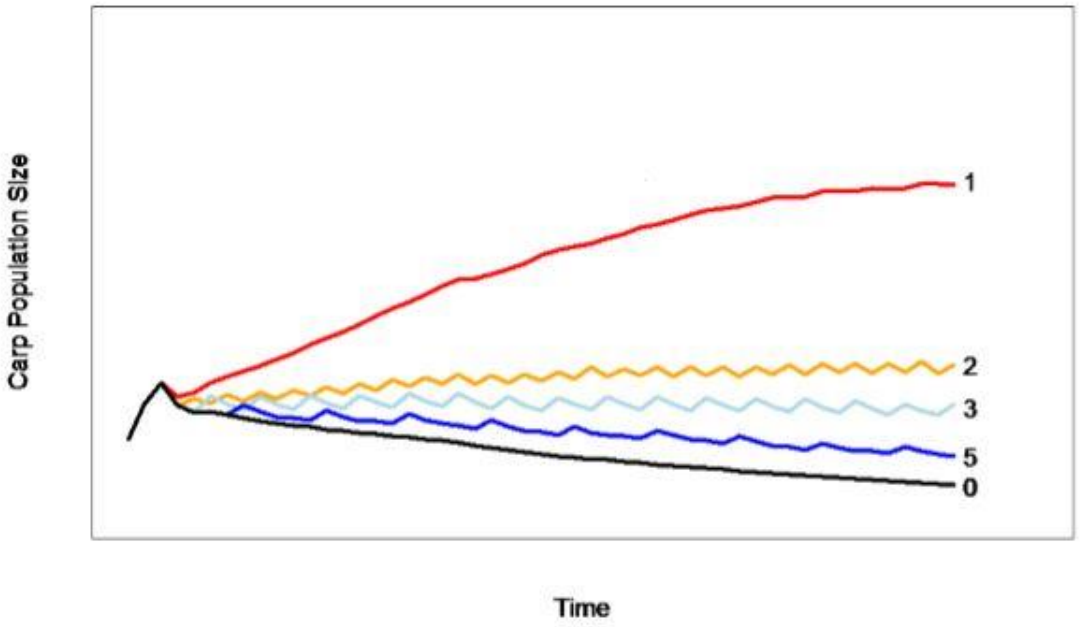


Figure S1. The likely relative changes in Carp populations over time with different flow sequences Within-channel flows covering instream benches (0) and irrigation flows providing limited annual access to adjacent wetland habitats every fifth year (5), every third year (3), every second year (2) or every year (1).

Carp numbers have a direct impact on native fish numbers for several reasons:

- They invade native fish habitats, taking up living and breeding space
- They steal native fish food sources
- They muddy the waterway creating a challenging environment for native fish and aquatic plants
- They eat native fish eggs and young, and both juvenile carp and adults are aggressive to natives

Despite this evidence the 2017-2018 MDBA watering plans state that –
"*A series of flow events released from upstream storages in spring, late summer and autumn over the next 12-24 months will disperse young Murray cod and encourage silver perch and golden perch to complete staged migrations and redistribute throughout the southern connected Basin. Flows through the system that reach the Murray Mouth in winter will support migrations of adult lamprey from the ocean into the River Murray*."[13] It is concerning that there is no mention of the unintended consequence, about the fact that carp will take advantage of the food and habitat resources before native fish can, and lead to an actual decrease in the ability of these juvenile native fish to sustain themselves. Floodplain inundation for two consecutive years will provide the ideal conditions for carp, putting the young native fish at risk as they try and move through the system, which is currently occurring

[13] https://www.mdba.gov.au/sites/default/files/pubs/Environmental-watering-outlook-2017-18-803.pdf

Locals have reported that up to 5000 carp were counted every 24 hours over a four week period at the fish ladder near the Hipwell Rd regulator. This artificial watering event has resulted in a mass breeding of an invasive species which have made their way into the Gunbower creek.

Another example of unintended consequences of environmental watering has been felt in the Gunbower region this winter and spring. Planned watering and flooding of Gunbower National Park began in June, this has forced large numbers of kangaroos out of the forest and onto private land. Kangaroos have competed with farm stock such as sheep, cattle and dairy herds, who with the current dry period were already struggling for feed. One farmer has spent over $30,000 on fencing to prevent kangaroos impacting feed on their property.

What way do we have of monitoring and reporting on both the economic and the ecological unintended consequences of manmade watering events?

Added to this are the ongoing concerns from locals about river bank erosion and slumping which has become evident in a number of tributaries and sections of the Murray River within the Murray Valley. The photo below shows a section of the Edward River near Deniliquin which shows increased river bank erosion.

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**Future Challenges**

Our organisation concurs with the key message of the Productivity Commission which states "In the future, there will also be major challenges and risks to implementing the measures to adjust Sustainable Diversion Limits by 2024," and support references that achieving the supply measures in the legislated time frame will be ambitious.

As such we recommend that Basin States adopt a more flexible and adaptive approach to the Sustainable Diversion Limits Adjustment Mechanism (SDLAM) Projects. Stakeholder organisations within the Murray Valley have on numerous occasions submitted the Adaptive Component Mechanism Here to be considered as an additional project for the suite which make up the 605GL of projects. This would allow new projects to be considered if current projects are rejected through the community consultation phase, if business cases become unviable or if new ideas are developed to make up the 605 GL, if the target falls short.

**'Stitch in time' changes**

Speak Up overwhelming supports the Productivity Commissions key point "This is an opportunity to make important 'stitch in time' changes to ensure an effective Plan. Failure will be costly for the environment and tax-payers and undermine confidence that the significant investment in the Basin Plan has been worthwhile."

Not only are the time frames of Water Resource Plans and the SDLAM highly ambitious, as highlighted by the Draft Report, they also require relaxation of constraints which stakeholders across the Murray, Goulburn and Murrumbidgee Valleys have publicly stated they will not support.

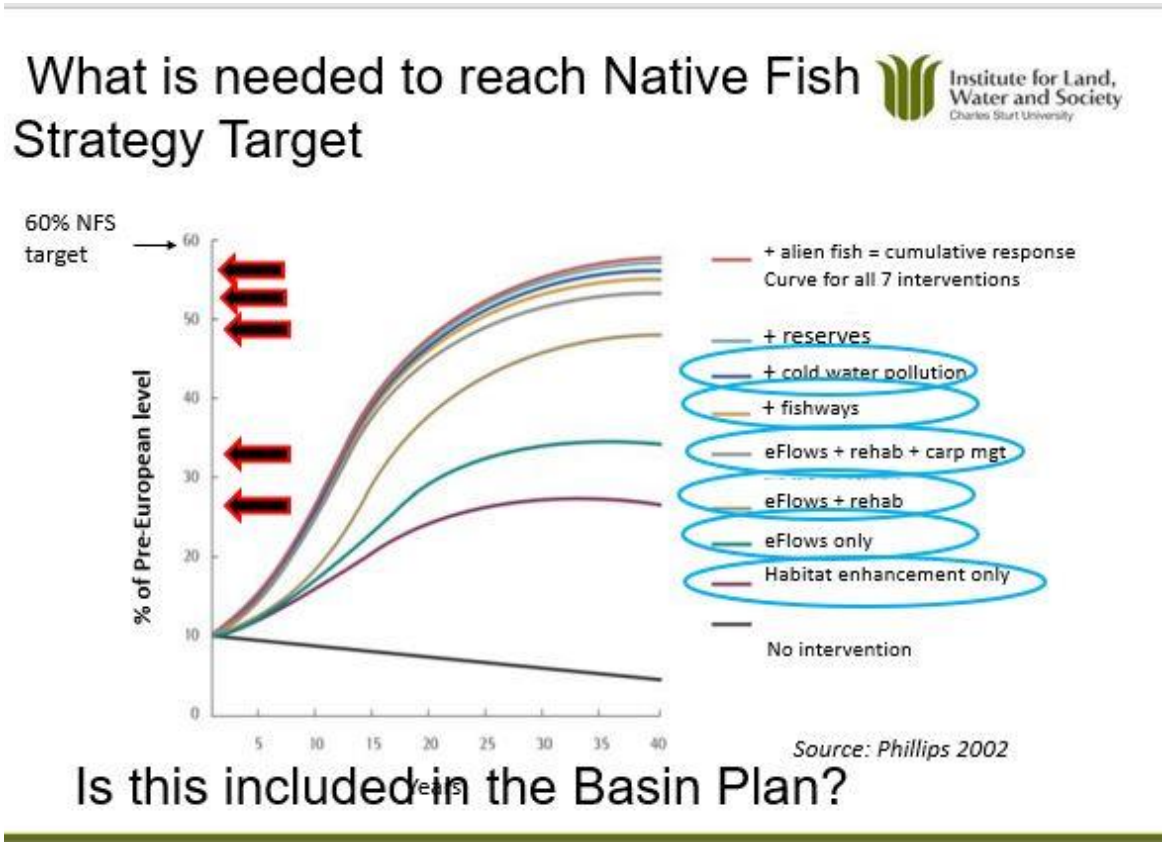
The 2016 floods have proved beyond reasonable doubt that to achieve the delivery of the 450GL and the flow targets of 80,000 ML/day at the SA border will require major flooding of private and public property. Shadow Water Minister Tony Burke, while Water Minister in 2012 told the National Press Club that there is a very good reason the MDBA set the Basin Plan recovery at 2750GL "With the constraints in the system, for the extra gigalitres of water recovered you don't get a significant environmental improvement"[14]

Speak Up highly recommends that water recovery be suspended and the money allotted to the recovery of an additional 450GL be used to carry out complementary measures, which will have greater benefits than just adding water. Failure to do so will result in this country not taking an opportunity which lays before them. To maximise the volumes of water already recovered under the Basin Plan multiple measures are required, not just flows. This is an opportunity to fund complementary measures, which will provide the best opportunity to optimise the amount of water already recovered.

For native fish recovery evidence is overwhelmingly supportive of a multiple measures approach. The graph below shows what is needed to reach the Native Fish Strategy Target, which was to return Native Fish populations to 60% of what they were pre European settlement. The graph clearly shows that relying on e-flows alone will only lead to half the target of the Native Fish Strategy. A combination of carp control, habitat enhancement, fishways, addressing cold water pollution, fish restocking are all

[14] Tony Burke speaking at National Press Club

required to meet the target of 60%. This is clearly explained by Dr John Conallin, who is an international expert on environmental flows in his presentation at the Open Water Forum.[15]




Failure of Basin Governments to take heed of the cautions outlined by the Productivity Commission will destroy communities, business, families and people. There is far too much at stake to not use this opportunity to make the 'stitch in time' changes. If we don't, we face the very real risk of the Murray-Darling Basin Plan ultimately becoming the biggest mistake in our country's history.

**Recommendations**

As already stated Speak Up recommend that water recovery be suspended until SDLAM is complete, government can prove that they can deliver the water they have without any further adverse impacts, comprehensive evaluations and monitoring are in place and complementary measures optimised.

The risks associated with the SDLAM projects can be mitigated if the Water Resource Plan time frame is extended and an Adaptive Component Mechanism is added as an additional project.

Speak Up does not support the 450GL through the recovery of water entitlements, however supports 'stitch in time' changes to allow complementary measures to replace the recovery of entitlements.

[15] Dr John Conallin - Open Water Forum 2018

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Our document Balancing the Impacts of the Basin Plan[16] has outlined a number of options that will provide the 'stitch in time' changes which are needed to prevent further damage to rural communities, business, people and their environment. They present long term options which will provide benefit to all Basin Communities, which will allow for sustainability and adaptive pathways forward.

Thank you for the opportunity to make a submission.

Shelley Scoullar
Chair – Speak Up Campaign.

[16] Balancing the Impacts of the Basin Plan