Water Amendment (Restoring Our Rivers) Bill 2023 [Provisions]

Submission from Murray Regional Strategy Group

Murray Regional Strategy Group

The Murray Regional Strategy Group (MRSG) comprises industry, Indigenous, community organisations and irrigation groups in the NSW Murray Valley. Our organisation formed after the Member for Farrer Sussan Ley advised the 600 plus people attending a crisis meeting at the Deniliquin RSL in 2018, that we needed one voice on water issues.

Chair – Geoff Moar

"Why should food producers pay the price for departmental failings?"

The Murray Regional Strategy Group

- **Supports** the extension of timeframes to deliver on the projects under the Sustainable Diversion Limits Adjustment Mechanism
- **Does Not Support** recovery of the additional 450GL through any mechanism
- **Does NOT Support** the removal of the socio-economic protective mechanisms put in place by Minister Plibersek's Cabinet colleague and then Water Minister Tony Burke who said in 2012 in relation to the 450GL (late) amendment that ***'The rule is it can only come from methods that have no downside, social or economic, so that's the rule.'*** Including
    - The 1500GL cap on buy backs
    - The removal of the socio-economic neutrality test
- **Does not believe** that these protective measures need to be removed for what the Minister terms "willing sellers". There is a vast difference between willing sellers and distressed sellers, who have the current water market to liquidate assets if required.
- **Opposes** the Greens Leader Adam Brandt's amendment to recover the 450GL from the Southern Basin
- **Does not support** the removal of further water from the consumptive water pool from southern NSW or northern Victoria.
- **Does support** full metering and compliance across all Basin States, which must be achieved before any more water is recovered under the Basin Plan

The Inspector General of Water Compliance for a second year in a row has reported he is unable to assess water compliance in NSW due to the fact that water resource plans have not been accepted and accredited. He has recently reported on the exceedance of the Sustainable Diversion Limits[1], and he squarely points the finger at departmental failings for these shortcomings in implementing the Basin Plan. Until accreditation has taken place no further water should be recovered.

Further evidence that there is still a significant amount of work to be done to reach basin wide compliance and metering was brought to our attention in **Appendix E**. Until metering and compliance issues are resolved there is no way of accurately assessing if further water for the environment is required.

NSW Murray and northern Victoria can no longer be punished for the failings of departments and for what appears to be "quick fixes" which will result in longer-term devastating consequences. These consequences will not only impact those residing in the communities impacted by buybacks but will flow onto those living in the city and have irreparable environmental ramifications.

If the Basin Plan is implemented as proposed (2750GL + 450GL), then all Australians need to be aware that the majority of this recovery comes from the Southern Basin where Australia's food is grown.

The Basin Plain in its current form does not resolve environmental or extraction level issues in the Northern Basin (Please refer to appendix A). The Basin Plan, even in 2023 does not provide for connectivity flows from the Darling to Menindee Lakes or to the Murray.

We encourage you to see our supporting Appendices which outline

- History of the Basin Plan
- Current Situation
- What is at risk
- Options moving forward
- No Meter

Geoff Moar
Chair
Murray **R**egional **S**trategy **G**roup

Appendix A – History of the Basin Plan

Prior to the implementation of the Murray Darling Basin Plan only **40%** of the rainfall which made its way into our rivers was extracted for human use, including towns, industrial, mining and other human uses. Agriculture accounted for **98%** of this **40%.**

The Murray Darling Basin is divided into the

- **Northern Basin – Darling-Barka, Lower Darling, Menindee.** Agriculture predominantly relies on Floodplain Harvesting due to the lack of catchments and water storage options.
- **Southern Basin – Southern Connected System: Murrumbidgee, Murray and Goulburn rivers, and their tributaries.** Agriculture predominantly relies on large water storages in the catchments, and is allocated water against an entitlement. **83%** of water recovered under the Basin Plan has come from the Southern Basin.

The Federal Government passed the Water Act 2007, developed primarily in response the Millennium Drought but also as part of an election strategy leading into 2007 Federal Election. The Act formed the Murray Darling Basin Authority (MDBA) and the Murray Darling Basin Plan which was finalised in 2012.

The Murray Darling Basin Plan in its current form is not a whole of Basin Plan. It is primarily a Southern Basin Plan to deliver political outcomes. A common misconception is the plan is a sustainable solution for the Murray Mouth and Coorong in SA and the plan will solve environmental and water extraction concerns associated with the Darling River.

Significant learnings have occurred since that extreme drought period which ended February 2010. These include whether the Murray Darling Basin Authority (MDBA) had sufficient expertise, timeframes and accurate information, on which to base their assumptions that underpin the Murray Darling Basin Plan.

The Basin Plan aims to reduce the Sustainable Diversion Limit (what has been deemed to be an acceptable amount of water which can be taken from a river for human purposes) to 10,902GL per year through recovery of water from productive use, either through buybacks or efficiency measures.

- The **2750GL** (2289GL of which is to be recovered from the Southern Basin) with a 2680 GL recovery target equates to **31% reduction** in water availability for agriculture
- The **3200GL** (what removing the protective mechanisms will result in) recovery target equates to a **37% reduction** in water availability for agriculture

NB - This excludes interceptions, such as floodplain harvesting

Appendix B - current situation

Recovery of the 450GL must come from the Northern Basin and localised South Australian projects.

Recovering the additional 450GL through buybacks comes with enormous risks and does not take into account –

- Increased environmental water ownership and storage through recovery of the 2750GL has already resulted in elevated flood risks as, as seen in the 2016 and 2022 flood events, coming at a cost of billions to taxpayers and business owners.

- Recovering water through buy backs in the Southern Basin will not improve ecological outcomes or prevent fish kills in the Northern Basin (Darling – Barka). Chief Scientists have long been calling for a complementary measures approach to the Basin Plan, as per their recent report Here

- Industry tipping point - removing further water from the Southern Basin will have catastrophic consequences for food producing industries. While the Water Minister feels the percentage of agricultural exports is an indication further water can be removed from the consumptive pool without impacting domestic supply this is far from the truth.

- The Government's own data through the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) says water buybacks have already driven water allocation prices above $200/ML in three out of 10 years. That same Government data estimates taking another 450 GL from farmers would push this to eight out of 10 years.

- Impacts to production – During the period 2018-19 to 2021-22 GMID milk production could also have been expected to be about 50% higher[2] than was observed as a result of the Basin Plan.

- The Murray Darling Basin Authority's Community Profiles demonstrate the ripple effect that removing water from communities extends beyond the farm gate. It infiltrates other sectors of communities like the service industry, processing, health, education and small business. Research indicates at least 10,801.5 jobs (fte) have been lost due to water recovery.

Assumptions of the modelled Basin Plan concluded that large volumes of water delivered to the end of the Murray would achieve a Murray Mouth open to the sea for 95% of the time. This modeling failed to account for the Southern Ocean's role in moving sand to block the flows.

- Bruce Thom, an Emeritus Professor at Sydney University and lead author of the paper in River Research and Applications journal[4], said the omission was stark not least because the region is *"one of the most high energy exposed beach coasts in the world."*
- Professor Thom said, *"The sand is winning and it will continue to win as sea levels rise [with climate change]."*

Objectives of the Basin Plan aim to maintain the Lower Lakes as a fresh water system. The installation of the barrages by South Australia in the late 1930's (completion 1940), resulted in blocking the ocean tides from entering the Murray Mouth, with the purpose of converting an estuary system to a fresh water one.

South Australia's 1991 Policy on Coast Protection and New Coastal Development adopted a sea-level rise allowance of 0.3 metres by 2050 and 1 metre by 2100[4]. Thus, within a 60-70 year timeframe the barrages will be underwater and there will be no stopping the influence of the ocean and we will be causing irreparable damage to our food production capacity, jobs and the upstream environments.

- Wentworth Group findings state *"under climate change, it is likely to be increasingly difficult to maintain freshwater values in the lower lakes."* Jamie Pittock, a professor at ANU's Fenner School of Environment said the failure to model coastal sand movements was *"a big oversight and it means the main basin plan targets are unachievable."*

According to the MDBA Annual Water Take Report 2020-2021[5] environmental entitlements already held by environmental water holders across the MDB total 4622.5GL. Delivering these volumes of water will not be possible without unacceptable flooding of public and private property, commonly referred to as "relaxing constraints". This video explains the complications with delivering the volumes to meet flow targets to the SA border Video Here.

- Adding another 450GL, plus the remaining water to be recovered to this volume will take government ownership to nearly 5,647GL, which needs to be stored in one of the upstream water storages.
- The total storage capacity of the Southern Basin is 14, 371 GL (excluding Lower Lakes). Assuming 83% environmental water is in the Southern Basin, one third of water in storage is environmental water (currently) and nearly 40% of water in storage will be owned by the environment if the full 3200GL is recovered.

Appendix B - What is at stake

- Elevated flood risks, jeopardising private property (including business, property infrastructure and agricultural production) and public property (including levee banks, roads, bridges and even aged care facilities and hospitals), resulting in increases to insurance levels. The 2016 flood in the Murray and the 2022 flood on the Goulburn and Murray/Edward system should be evidence enough that these volumes cannot be delivered without billions in cost recovery.

- Entire Industries – once an industry falls below its critical threshold (the volume of production required to enable value adding and service supply sectors to operate efficiently) those industries will no longer be viable.

- Irrigation schemes – once an irrigation scheme falls below operational efficiency those food and fibre producers left in the system will not be able to affordably have water delivered.

- Frontier Economics have sounded a clear warning, their 2022 report[1] concluded that even without further water recovery we will lose 25,000ha of horticulture in the next dry sequence and if the 450GL is recovered their prediction is we will lose 95,000ha of irrigated agriculture[2].

- Furthermore, the Frontier report concluded that simply buying back Basin Plan shortfalls would result in over $850 million in forgone production per year[2].

- The loss of $513 million a year in Gross Value Irrigated Agriculture Production ($855 million GVIAP if you include the Bridge the Gap component), equating to 900 on farm jobs in Victoria alone[1] . Using a conservative multiplier conversion this equates to $1.8 billon in lost economic activity a year, based on the recovery of the 450GL in buybacks.

Table 18: Estimated GVIAP reduction associated with less irrigation from a 450 GL buyback

Lost GVIAP ($m/yr)	$/ML GVIAP	Vic GMID ($m/yr)	Vic Mallee ($m/yr)	NSW ($m/yr)	SA ($m/yr)	Total ($m/yr)
Perennial horticulture	2000	24	98	32	70	224
Dairy	1350	169	-	14	3	185
Mixed grazing	360	7	-	7	-	14
Irrigated cropping	600	6	-	16	-	22
Rice	420		-	35	-	35
Cotton	800		-	34	-	34
All industries total		**206**	**98**	**137**	**73**	**513**

Source: Analysis by RMCG, with TC&A and Frontier Economics.

Appendix D – Options

450GL Upwater

- Needs to be recovered from the Northern Basin to address ecological issues along the Darling-Barka
- Needs to include localised projects in South Australia to address local problems

SDLAM

- Work with localised knowledge and experience to develop ideas and projects, including the NSW Murray Road Map, to achieve the full suite of 605GL.
- Investigate Constraints Management Strategy for Murray for flows up to 30,000ML/day for environmental purposes.
- By investigating and achieving ideas/projects with locals full recovery of the 650GL can be achieved without the need for further buybacks in the NSW Murray.

- Before any further water is recovered under the Basin Plan, Water Resource Plans must be accredited and compliant so that the current water take can be accurately assessed.

- A review of the environmental outcomes for the Lower Lakes to address the long-term viability of the barrages needs to take place; SA need a Plan B.

- Work with local people to identify ways to maximise environmental outcomes within river flows, at levels where affected parties agree. Working with locals to assess whether changes to flow rates are feasible, all impacts are fully mitigated and no elevated flooding risks.

- Organisations under the MRSG umbrella have submitted options to address these concerns to the Minister and the Productivity Commission, these include

    - Multiple Measures approach to implementing the Basin Plan Here provides a number of options to delivering environmental outcomes.
    - The Murray Regional Strategy Group NSW Murray Valley Road Map provides a solution to delivering water and increasing the ecological footprint of the mid-Murray Valley, a model that could be replicated across other systems, it can be found Here.
    - There are also a number of options to consider for improving ecological outcomes for the Lower Lakes, Murray Mouth and Coorong Here

Appendix E – No meter

Photo (left) was posted on a Facebook page (Growing the Crop 2023) on September 14, 2023. In the original posting (which shows water being extracted from an artesian bore in south east South Australia) the owner commented that no pump was needed, you just needed to turn the tap in "God's country". When asked, the owner originally denied that there was a meter on this outlet, this was later changed when someone commented that there is no pumping without a license and meter in NSW.

While this extraction point may not be within the MDB, South Australia cannot have their cake and eat it too. Removing water from aquifers in the South Australian south east impacts flows into the southern Coorong, which was historically recharged by these aquifers.

References

1. https://www.igwc.gov.au/media-releases/inspector-general-still-unable-assess-key-basin-states-compliance
2. https://www.water.vic.gov.au/our-programs/murray-darling-basin/social-and-economic-impacts-of-the-basin-plan-in-victoria
3. https://onlinelibrary.wiley.com/doi/abs/10.1002/rra.3551
4. https://cdn.environment.sa.gov.au/environment/images/CPB-POLICY-1991-on-Coast-Protection-and-New-Coastal-Development.pdf
5. https://www.mdba.gov.au/sites/default/files/publications/annual-water-take-report-2020-21.pdf