

Submission to the Productivity Commission on the Murray Darling Basin Plan: Five year assessment, April 2018.

The underlying reason for the decline in the health of the Murray Darling Basin is the competitive and antagonistic State water policies based on jurisdictional boundaries that has been pursued for the last century (boundaries both State and river valley). The States have been and are still hell bent on getting every possible scrape of water out of the river system in their respective economic zones and use it for agricultural purposes rather than see another State/region gain from the use of it.

This attitude remains largely unaddressed under the Basin Plan and is the primary reason for the slow progress of the Plan as some of the States try and subvert the Basin Plan to their individual economic goals based around agricultural pursuits.

There has been an excessive focus on the detrimental socio/ economic effects of the water buy back on irrigated agriculture. There is little recognition of the positive socio/ economic effects a healthy Basin riverine environment will have on the Basin economy and communities, particularly in regard to the tourism industry. An industry that does not have the same production/income limits per mega litre of water that restricts agriculture. This bias towards agriculture is indicative of the attitude of the State based agriculturally focused water bureaucrats. This narrow mindedness will fail to deliver the level of diversification possible and therefore the resilience that is possible in a less water dependant future.

The water savings projects, that have been put forward as an alternative to some of the water buy back, need to be very carefully assessed for actual effect. Unless these projects can be shown, by independent modelling, to increase the level of “end of system flows” in the respective valley that the project relates too or an increased level of wetland watering (wetlands associated with the river system) then it can be assumed that the State proponents are simply rebadging existing arrangements and it is designed to improve allocations levels and security of supply for some irrigation license holders.

The Commonwealth is reliant on fully cooperative and committed States to achieve the aims and objectives of the Basin Plan. Considering the Commonwealth is relying on the same State bureaucratic structures that caused the health decline in the Murray Darling system in the first instance it should be of no surprise that those bureaucratic structures are neither fully committed nor cooperative.

Addressing the health issues of the Murray Darling Basin requires a holistic and cooperative approach by all the stake holders and a healthy Basin has substantial economic value for the Australian economy.

Specifically in concern to the **constraints management** and the **prerequisite policy measures** in the Murrumbidgee Valley:

Upstream of Balranald there is a natural choke in the Murrumbidgee River with a river channel capacity of around 9,000 Mega litres of flow per day (called the Choke at Chaston’s Cutting). This compares to Wagga’s 80,000 MI/day, Hay 40,000 MI/day, Maude 20,000 MI/day Red Bank Weir 12,000 MI/day and downstream Balranald’s 12,000 MI/day.

This choke is listed in the Constraints Management Strategy as 9,000 ML/day. The Commonwealth's desired outcome is to get 12,000 ML/day passed the choke to allow adequate flooding in the Junction Wetlands downstream of Balranald and other positive environmental effects further down in the Murray.

The removal of artificial block banks and levees along the Murrumbidgee River upstream and downstream of the choke would result in the river and floodplain operating naturally in this area and would allow the water required by the Commonwealth (the 3,000 ML/day above the chokes capacity) to flow around the choke by going out on the floodplain above the choke and back into the river below the choke.

These artificial levees and block banks are part of Water NSW's Lowbidgee Flood Control and Irrigation District infrastructure. This infrastructure was built in the 1940's to allow Red Bank Weir to inundate the forest floodplain on both sides of the river, from Red Bank to Balranald, without flows running back into the river through the many natural flood runners that connect the river and floodplain in this area. This infrastructure has broken the connectivity between the floodplain and Murrumbidgee River in this area, except in years of Valley wide major flooding events. It should be noted that Red Bank Weir was built (as result of the River Murray Act of 1919) as a compensating work for the loss of flooding in this area due to the construction of Burrinjuck Dam.

In August 2017 the Commonwealth and NSW Governments initiated an environmental flow of approximately 22,000 ML/day at Wagga which was targeting the Mid Murrumbidgee billabongs and lower level wetland areas of the River. The flow then progressed into the lower section of Murrumbidgee River. The size of the flow between Red Bank Weir and Balranald was reported to be 9,000 ML/day and remained at this level for approximately 10 days. The 9,000 ML/day flow caused a small amount of overbanking onto Red Bank South (Yanga National Park), there was little or no overbanking onto the Red Bank North floodplain.

The artificial block banks and levees held the water out. The river water level was between at 60 to 100 cm higher than the surrounding floodplain/wetlands. (Photographic evidence attached) If the block banks in the river levee were removed (and replaced with appropriate water infrastructure) the floodplain and river would operate in a natural manner. Allowing water to exit the river above the choke and flow out onto the flood plain, then flow passed the choke and then back into the river below the choke where the river increases in capacity again.

This would not only have provided a substantial flood event through the Red Bank system, but also would have substantially improved the flooding achieved in the Junction Wetlands.

The residual water of this environmental flow event was then diverted into Lake Victoria, which enabled NSW to the use it to supply its' South Australian commitment under the River Murray Act. This enable NSW to use environmental water to improve the NSW general security allocation levels.

It is now apparent that the Commonwealth Water Holder can initiate an environmental flow that would provide substantial flooding in both the Red Bank and Junction wetlands, with the removal of block banks in the river levee in the Red Bank system and replacement with appropriate water infrastructure.

That the flow can be initiated in a year of low allocation levels (approximately 30% plus carry over) and can be done without impact on the constraints further upstream in the Murrumbidgee Valley. And this flow would have positive environmental effects in the Murray.

It follows from this that;

The continued failure of the NSW Minister for Water to direct the removal of these block banks (and replace with appropriate infrastructure) appears to place the Minister in breach of the NSW Water Act 2000 (and possibly other Acts), as it is the duty of the Minister to protect and where possible restore the River and its dependant ecosystems under the Water Act 2000.

The Murrumbidgee River, including the Lower Murrumbidgee Floodplain, is an endangered ecological community under the NSW Fisheries Management Act 1994.

The floodplain ecosystem is a dynamic integrated system which relies on connectivity between the river channel and the floodplain to drive essential ecosystem services and maintain biodiversity (Natural Resources Council 2009).

The installation and operation of in-stream structures and other mechanisms that alter natural flow regimes of rivers and streams has been listed as a key threatening process under the Fisheries Management Act.

The main impetus for the Nimmie-Ciara project was to allow the bypassing of this river choke via flows from Maude Weir. This has subsequently proved physically impossible to do when the Murrumbidgee River at the choke is full.

In the past it was an ambition of some NSW bureaucrats to use Yanga Lake as an on route storage to supply the NSW commitment to SA. The private landholders of that time in the Nimmie-Ciara and Yanga were strongly opposed, fearing they would be denied access to supplementary flows, because the State would capture this water to supply its' SA commitment and by so doing increase the general security allocation levels.

It is plausible that some NSW bureaucrats still have ambitions to use Yanga Lake as an on route storage; to capture environmental flows under the guise of fish refugee or similar, so that it can then be use it to supply the SA commitment to the same end effect. This would clearly be at the expense of the Murrumbidgee River and the Murray Darling system, as environmental flows would be diverted away from the intended purpose. And this would signal the continuation of the policies that lead to the decline in the health of the Murray Darling Basin in the first instance. If this proves true, then in effect, it could be said that the aid convoy sent out by the Howard Government for the Murray Darling River system is being hijacked by the very entities that caused the need for the aid convoy in the first place.

The "water savings projects" need very close scrutiny to assess the real effect.

At stake is a more diverse and resilient Murray/Darling Basin economy, which is very much needed to face the impending effects of climate change.



