

The Murray Darling Basin Plan

Environmental Water and Triple Bottom Line Outcomes – When is Enough Enough?

Background to Plan

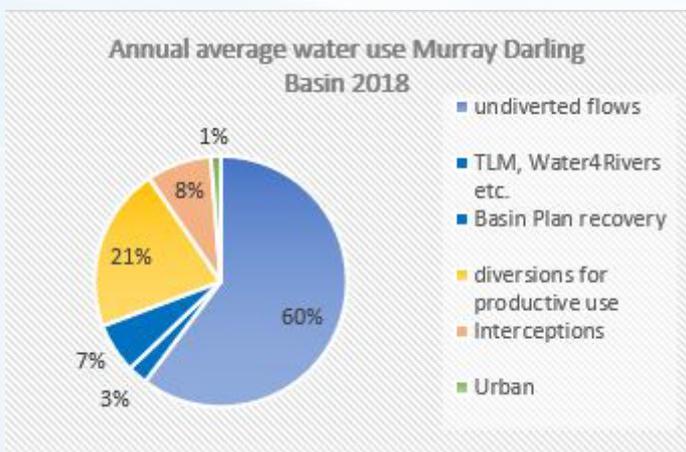
The Murray-Darling Basin Plan was developed to improve the health of rivers and floodplains by acquiring water for the environment, at a cost of \$13 billion to the Australian taxpayer. The Basin Plan was signed into law in November 2012 under the Commonwealth Water Act 2007.

The Basin Plan sets limits on how much water can be taken from the Basin for irrigation, drinking, industry, towns or for other purposes in the future. These limits are called Sustainable Diversion Limits, or SDLs. The SDLs came into effect in 2019.

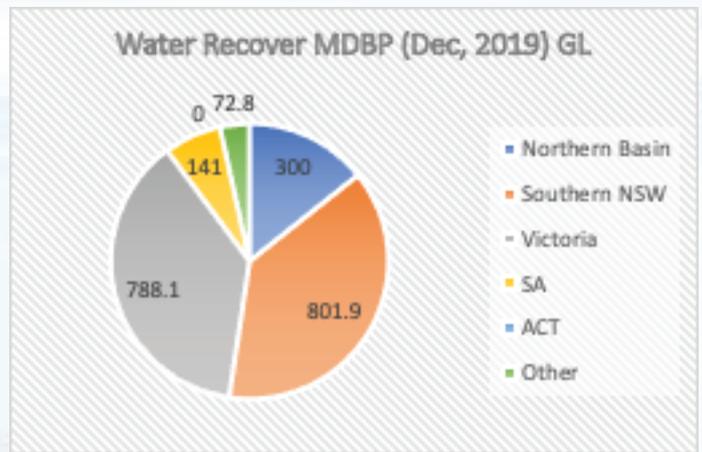
Water for the environment

The Basin States and the Federal Government agreed that 2,750 gigalitres (GL) of water from across the Basin will be recovered and returned to the environment, through direct buybacks, on and off-farm efficiency programs, the Sustainable Diversion Limit Adjustment Mechanism (SDLAM), and then an additional 450 GL of Upwater taking the total recovery to 3,200 GL. These are modelled amounts of water, they have never been peer-reviewed or published in a scientific journal. Recently scientists, independent from the MDBA have questioned the modelling which was used.

Graph 1 shows the amount of water available to the environment in the blue sections (divided into 3 categories – undiverted flows, pre-Basin Plan recovery, Basin Plan recovery). The remaining sections represent water diverted from rivers. These figures are based on water recovery by the end of 2018. **Therefore, 70% of the annual flow of the Basin is already available for the environment. That leaves just 21% for irrigated agriculture to produce over 50% of Australia’s irrigated produce.**



Graph 2 shows the recovery of water entitlements under the Murray Darling Basin Plan with the LTAAY conversion applied (a conversion ratio is used to determine a Long Term Annual Average Yield). **Therefore, southern NSW (Murrumbidgee, Lower Darling and Murray) and north Victoria (Murray and Goulburn systems) have contributed 76% of water recovery. The Southern Basin has contributed 84%, the ACT is yet to contribute and the Northern Basin has contributed 16%.**



Delivery of the Environmental Water

In the Southern Connected System (SCS) there are three main river systems and their tributaries – the Goulburn, Murray and Murrumbidgee - all of them contain constraints, which limit the volume of water which can be safely delivered per day, known as channel capacity.

Under the Basin Plan, the assumption was made that delivery constraints would be relaxed. Next to no consultation with affected parties occurred. Significant impacts from flooding will arise on private land, putting more financial and emotional pressure on landowners already being impacted by the Basin Plan. The MDBA definition of constraints states – “constraints are river management practices and structures that govern the volume and timing of regulated water delivery through the river system”.

There are two types of constraints – physical and operational.

Those living on the floodplains expect to live with unregulated floods. The Basin Plan will increase the frequency and duration of floodplain inundation, leading to various costly consequences to food and fibre producers including: loss of crops and pastures, delays for harvest and sowing, spread of weeds and other pests, devaluation of land due to increased flooding events.

To deliver the increased volumes of water down the SCS, the rivers are run at higher levels for extended periods of time. As our rivers have evolved to expect boom or bust events the sustained high river levels are having significant impacts on river bank stability and impacting the habitat for many native species.



Photo 1 - The Edward River 20kms upstream of Deniliquin. Excessively high, constant flow levels are causing 'notching' leading to bank erosion, tree collapse/death and excess sediment smothering instream habitat. This was originally a site where Azure Kingfishers nested, but the birds have not nested since the high flows began and nesting sites collapsed.

Social and Economic Impact Assumptions

In the guide to the Murray Darling Basin Plan in 2011 the MDBA massively under-estimated social and economic impacts when it predicted the loss of \$800 million in production and 800 jobs. Independent reviews have shown that water recovery under the Basin Plan has resulted in the following impacts within the Murray Irrigation and the Goulburn Murray Irrigation Districts alone (based on 2016 / 2017 data),

- An economic loss of \$800 million across the two regions alone
- Loss of 1678 jobs across the two regions alone
- 30% decrease in rice production and 21% decrease in dairy (Murray Valley), a 20% reduction in irrigation production, mostly from dairy (GMID)

Way Forward

1. Stop further acquisition of water entitlements for the environment until we have a stakeholder agreed way forward to deliver the water already recovered and show success with water now owned by the state and Commonwealth governments
2. Invest the remaining MDB Plan funds into an evidence-based, multiple measures approach using a suite of interventions not just aimed at water recovery to achieving the desired environmental outcomes – healthy ecosystems in unison with a triple bottom line.
3. Implement the Blackmore et al (2017) recommendation to create a trusted modelling base: 'The establishment of a stable, agreed, clear and accessible benchmark as the basis upon which to assess a range of supply measures is critical.'