



Speak Up Campaign

Submission

Proposed legislative amendments for floodplain harvesting in NSW

Darling River flows (or lack thereof) impacts on Murray River reliant communities –

It is critical to recognise the impact of reduced flows from the Darling on downstream communities directly and indirectly connected to the Darling River. The introduction of the CAP 1993/1994 was established to advise the sustainable level of take throughout NSW, including through Floodplain Harvesting (FPH) in the Northern Murray Darling Basin.

The failure to implement legislation to licence, monitor, meter and ensure compliance of FPH has resulted in the practice growing to above and beyond the sustainable level put in place by the 1993/94 CAP. Unregulated growth is impacting on communities and the environment across the entire Basin.

Rainfall, inflows and the volume of water prevented from entering the rivers and creeks connected to the Darling all impact on the volume of water which enter Menindee Lakes. We cannot control rain, however we can control the volumes which are prevented from providing inflows to Menindee.

Management of Menindee Lakes as outlined by the NSW Government

“The Menindee Lakes storage is owned and operated by New South Wales with a long-standing arrangement under the Murray Darling Basin Agreement. This Agreement requires the Murray Darling Basin Authority (the MDBA) to include the water held within the lakes as part of the shared resource of the Murray River System, and use the water in the lakes when the volume is above 640 GL until it next falls below 480 GL.

Once the total volume of the lakes falls below 480GL, the held water is no longer considered a shared resource of the River Murray System and the water is managed by New South Wales to meet local demands. Some of the water within the Menindee Lakes system is considered dead storage and cannot be accessed for release. The dead storage volume within the system is 125 gegalitres.”



We note the comments made by the MDBA that “The more water is held back in the lakes where evaporation rates are high, the less water is available to the states to allocate to licence holders.”

When the MDBA operated Menindee in 2016 it was drained to coincide with major flood events throughout eastern Australia. Since then record low rainfalls have followed with Menindee Lakes remaining below this 480GL threshold resulting in the Darling not contributing to South Australian entitlement flows.

How does this impact on allocations in the Southern Connected System?

To meet the agreed minimum entitlement flows to the SA border the Murray has picked up the shortfalls, which have not been supplied by the Darling. Both the NSW Murray General Security and Vic Murray water users have been required to meet the shortfall in entitlements, and they have also been required to pay for the conveyance losses of delivering this water.

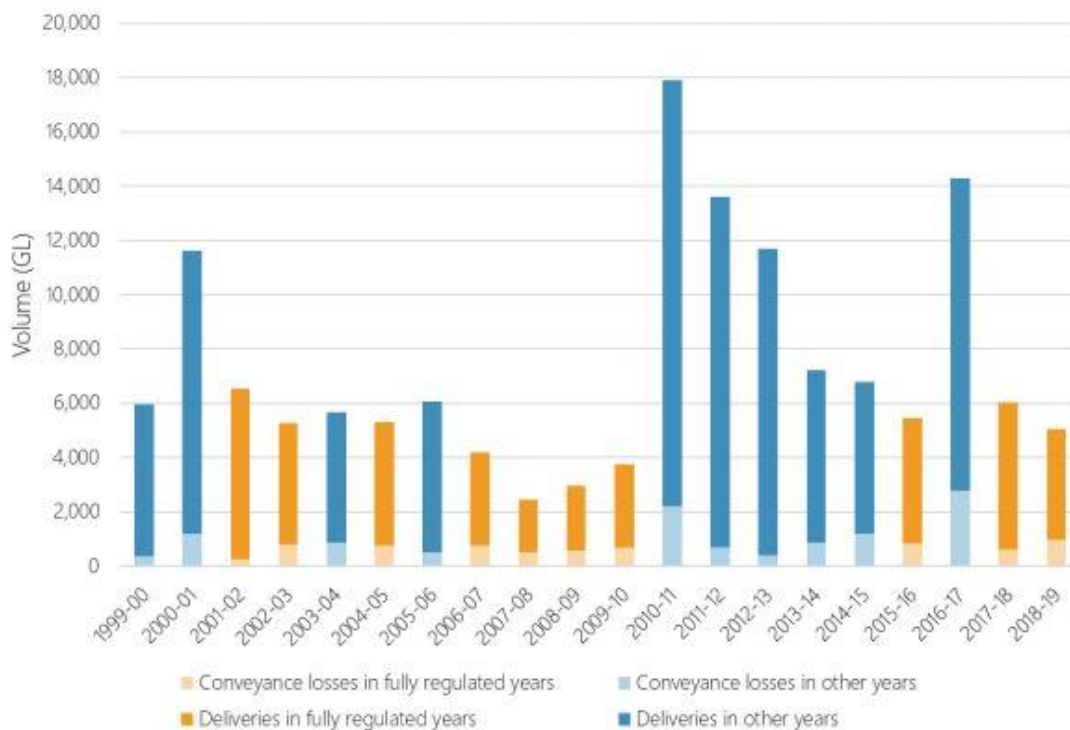
In the July 15, 2020 NSW Water Allocation Statement it was noted that as of June 2020, 2,060 GL was needed to run the system. The NSW portion of this shared resource is 975 GL based on rules in the Murray-Darling Basin Agreement.

- For June 2019 about 2,040 GL was needed to run the system. The NSW portion of this shared resource is 630 GL based on rules in the Murray-Darling Basin Agreement.
- According to the MDBA Report Summary Conveyance losses in the River Murray System for the losses for the 2015/2016 were 849GL

This new level of conveyance losses is double the historical volumes of water needed to run the system in dry periods.

Figure 16 below was extrapolated from page 27 of the Interim Inspector General’s report on lower inflows on state shares under the Murray Darling Basin Agreement. The graph shows conveyance losses in regulated years (ie years when flows are released and controlled from storage, years without unregulated flows), at 1000 gigs or below, yet over the last two years over 2000 gigs were required to deliver water orders in the Murray system. This coincides with the Darling River being offline, and therefore not making contributions to SA entitlement flows.

Figure 16 Delivery volumes and conveyance losses, 1999 to 2019



Source: Interim Inspector-General of Murray–Darling Basin Water Resources, based on data provided by the MDBA.

Embed the floodplain harvesting license determination process

Speak Up supports the need to licence FPH, and this must be done through a transparent process. The current reporting and modelling on CAP provides no confidence that the process being used to determine share components will be transparent and equitable. The DPIE presentation confirms the two processes which will be used are modelling for regulated rivers and volumetric conversion for unregulated rivers and a ‘best estimate’ process.

Prior to allocation of water against entitlement in the NSW Murray system, minimum downstream flows, along with environmental needs have to be met. This system has been well established, it is metered, measured and compliant.

We understand that the nature of unregulated rivers presents difficulties in committing annual minimum flows to meet downstream flow targets, however our colleagues have sought confirmation from NSW DPIE that there are no plans in place to ensure meaningful connectivity flows to Menindee, Lower Darling, Murray River and flow co- contributions, to South Australia’s minimum entitlement flow of 1850GL. This is further confirmed in the proposed Border Rivers Floodplain Policy and its referral to minimising downstream



connectivity by only establishing flow targets of bare minimum to Wilcannia as outlined in the Barwon Darling Water Sharing Plan.

To increase equity and reduce the impact on downstream environs and communities end of system flow targets need to be introduced. This will bring the Northern Basin into step with the objectives of the Murray Darling Basin Plan to bring connectivity between river systems.

Priority – The priority consideration to address the issues of unregulated growth of FPH on the health of the river, environs and downstream communities can only be resolved with a commitment to meet end of system flow targets. FPH in any part of the state should not have any third party impact on those downstream to be able to access water and an equitable share.

Recommendation:

To increase transparency and provide confidence in the process the licencing of share should reflect access which supports downstream social, environmental and economic needs. NSW need to provide -

- Licensing should not occur above the 1993/94 CAP limits
- Public transparency of CAP modelling reports and accreditation
- Public transparency of decision making and individual water access licences
- Publicly available assumptions used to issue and determine licences and volumetric licences
- Publicly available end of system flow targets and conditions to ensure downstream social, cultural and environmental needs are met above all else

Implement the NSW Government's Floodplain Harvesting Measurement Policy

Speak Up is in full support of bringing FPH measurement policy to an equal standard as the NSW Murray Valley and expect the full installation of meters to AS4747 standards, bringing metering, measurement, telemetry and compliance up to acceptable standards.

Licences should not be issued until meters are in place, with no exceptions.

Wherever possible metering should be installed at extraction points, and must be in place at pumping points when water leaves on farm storage dams.

Establish a transitional exemption for floodplain harvesting that will cease on 30 June 2021

This exemption has been rejected twice by the NSW Parliament. Speak Up does not support this exemption, all works must be compliant, metered and licenced prior to harvesting of water.

The exemption applied to the First Flush event which occurred early this year (2020) has become surrounded in murky and opaque management. The volume of Menindee Lakes is



still below the volume required to meet contributions to the NSW share of SA entitlement flows, meaning the Darling is still offline and the Murray is meeting the shortfalls, drawing on NSW Murray General Security to secure both the entitlements and conveyance losses.

From past experience and given that metering / measurement is still not fully implemented, exemptions to FPH until licencing and measurement are implemented poses further risk of opaque decision making resulting in third party impacts.

Again, our concern is flow targets, ensuring downstream and environmental needs are met needs to be a priority in the transition to issuing of FPH licences.

Establish a state wide exemption for tailwater return drains

Rainfall patterns, soil types, allocation systems, metering, licencing, property size, infrastructure, storage capacity and production systems in the NSW Murray Valley are starkly different from those in the Northern Basin.

For the overwhelming majority in the NSW Murray, rainfall events which lead to the accumulation of tailwater in return drains comes at the wrong time of the year and will be a detriment to production; most are looking to remove water from the property not harvest and store it.

Floodplain harvesting in the southern basin is so insignificant that DPIE admit that they didn't even bother to incorporate it into their modelling. Basic Landholders rights under Section 53 of the Water Act allows our region to capture 10% of runoff without a licence. Based on an average rainfall of 500ml, using a runoff factor of 3.5% this equates to 1.75 megs per 10ha.

The district Land and Water Management Plans require landholders to withhold approximately the first 10ml per hectare in an overland flow event (which are quite rare anyway). This equates to 100 meg per 1000 ha.

Expecting those who have complied with Land and Water Management Plans for decades, have invested in recycling systems and are conscientious about their impact on the environment to release tailwater drains into the water ways, would be a backwards step for NSW.

The scale and size of tailwater drains in the Northern Basin, along with the type of rainfall events which tend to occur in warmer months and in larger events than in the Murray Valley, means that an exemption to tailwater return drains in the North has a far greater impact on river flows.



One option to overcome the vast differences of the regulated system compared to the unregulated system is to limit tailwater drain return capture in the unregulated system to areas which have been developed into irrigation layouts. This will ensure only rainfall on farm is captured, therefore excluding the possibility of harvesting and storing runoff which has come from an external source.

In Conclusion

Before issuing FPH licences, the NSW Government needs to acknowledge and recognise the importance of Darling flows to connectivity of the Murray Darling Basin river systems and the impact on NSW Murray General Security resource when the Darling is not contributing to SA minimum entitlement flows.

The priority for the NSW Government and Department must be to deliver end of system flows. The scale and size of infrastructure in the Northern Basin has resulted in unsustainable levels of take impacting on the ability to meet environmental needs, human needs and the needs of a healthy river. Speak Up understands this is an unregulated system, and sometimes it just does not rain, which is even more reason for flow targets to become a greater priority.

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