

Lower Darling River releases

On 10 March 2020 water began flowing into Lake Wetherell – the first storage in the Menindee Lakes system. This was as a result of natural inflows from rainfall in the Northern Basin in late January and February. Temporary water restrictions were used to protect the first flows in these NSW waterways, some of which had been dry for many months.

As at 19 March Lake Wetherell had joined with Lake Tandure and was holding 85 gigalitres (GL) and inflows of around 10 GL per day are expected for the next few weeks. WaterNSW is forecasting some 275 to 340 GL in total to enter the Menindee Lakes from current flows in the system upstream. More inflows will arrive if further rainfall occurs upstream.



Water flowing into Lake Wetherell

Managing releases

Volumes of well over 200 GL will now ensure the needs of the Lower Darling River can be met for the next 12 to 18 months with careful management. This will meet all high priority needs along the river, plus general security carryover water already in accounts. At this stage water security in the Lower Darling remains the focus, meaning more inflow beyond that already forecast will be required before a new general security allocation can be announced.

The department intends to lift the section 324 restriction on water access along the Lower Darling River which has been in place since December 2018. This will allow access to remaining water in high security and general security accounts, but will not impact on the ability to supply water for critical needs. This is consistent with the approach taken in the northern valleys, where suspensions of carryover water were lifted in the Border Rivers and Upper and Lower Namoi Rivers once 12 months of water for critical needs was available in storage.

To provide the best water quality and ecosystem health outcomes, the water will be carefully released based on specialist scientific advice as an initial pulse flow of 30 to 40 GL. The aim is to provide a dilution and flushing action to move contaminated water through the system. This 'first flush', required to restore water quality in the Lower Darling, will be followed by lower flows to maintain connectivity with the Murray River for as long as possible.

With the current expected inflows, Menindee releases are intended to provide river health and delivery of supplies to the Lower Darling only. They will not contribute to Murray River requirements or allow trading to the Murray River.

The pulse release requires the removal of all four emergency block banks that were placed along the Lower Darling River to provide pools of water for the critical needs of landholders during 2018 and 2019. Work on the removal of the block banks is underway.

Timing and pattern of releases

It is expected that releases to the Lower Darling will begin the week of 23 March, once sufficient water is stored in Lake Wetherell to allow the higher flow rates of the pulse to be achieved and the block banks have been removed. The final design of the release hydrograph is being prepared in consultation with fisheries and ecosystem experts, however; it is likely to comprise initial release rates rising to around 4,000 megalitres (ML) per day for a period of about six days, before stepping down to lower rates of around 200 - 400 ML/day.

The first flows to enter Lake Wetherell were of poor quality – de-oxygenated, turbid and highly saline - and have had some impacts on fish with the death of a number of Bony Bream around 12 March, as the inflows reached the stranded pools at Lake Wetherell. However, subsequent flows behind the front are of better quality and will facilitate system recovery.

A comprehensive monitoring program has been prepared to track releases from Menindee Lakes along the dry Lower Darling to the Murray and provide feedback on the progress and mixing of the flow front as it reaches remnant pools. The data gathered will be analysed and used to build knowledge and skill around the safe re-starting of regulated rivers after prolonged dry periods.