

Community update for Barwon-Darling, Menindee Lakes and Lower Darling-Baaka river

Drop in dissolved oxygen levels and actions to address this

Over the last few weeks, we have been monitoring the dissolved oxygen (DO) in the Barwon-Darling and Lake Wetherell as the flows from the North have progressed toward, then arrived at, Menindee Lakes.

During this time, the DO in the Weir 32 weir pool remained relatively stable, and a flow of 750ML/day was sufficient to maintain DO levels within healthy ranges for fish. Now that we are seeing the physical arrival of the water from the North into the weir pool, the DO has dropped down to around 3mg/L, (you will notice the arrival of this water as it is highly turbid (muddy)). Levels that drop below 3.5mg/L are a concern, and a trigger for taking action.

To address this drop in DO and minimise the potential risk of mass fish deaths, releases from Lake Pamamaroo have been increased to 1500ML/day (from the current 750ML/day) today. This rate will continue until Wednesday 15 January, at which time it will be reassessed, noting that between now and Wednesday, Menindee will be experiencing heatwave conditions. This action should result in sufficient DO levels, mainly in the upper reaches of the weir pool around Main Weir, to provide a refuge for fish. It is likely we will continue to see lower DO levels in the weir pool for at least the next few days. We will continue to monitor the situation closely.

Ongoing management

Following this initial pulse of 1500ML/day (7 days), we will review if DO has stabilised and make a decision on flow volumes for the coming days and weeks. With good inflows from the north, the supply in the top lakes remains at good levels.

Micro bubble oxygenation will not be deployed as it has been found to only be effective in low flows or small refuge pools. We are currently utilising high flows as the best option to address low DO.

We are also undertaking studies of this section of the river to identify possible causes of the ongoing issues experienced with oxygen levels.

Water quality in the Barwon-Darling river in other locations

Dissolved oxygen in the Barwon-Darling rivers at Walgett, Waraweena (Culgoa Junction), Louth and Moorabin (Wilcannia) are all above 4.0 mg/L.

While dissolved oxygen (DO) has dropped at Menindee Town, the DO levels downstream in the lower Darling at Pooncarie, Wentworth and Burtundy are stable above 6 mg/L. DO levels in Lake Wetherell are also stable at 4.0 mg/L through the whole water column.

Inflows and why releases are being made from Lake Menindee

Rainfall in parts of the northern Murray-Darling Basin from early December resulted in noticeable flows in the tributary catchments of the Barwon-Darling Rivers. Inflow from this rainfall event commenced entering Menindee Lakes mid/late December, with approximately 190 GL having arrived to date. Forecasting indicates that the Menindee Lakes may receive additional inflows estimated at 110 – 210 GL by mid-February 2025.

This is more water than can be captured in Lakes Wetherell and Pamamaroo alone. The outlet to Lake Menindee was opened to create enough airspace in Lake Pamamaroo with the aim of having the upper lakes full once all the water from the Northern flow event reached the lakes.

The increased airspace within Lake Pamamaroo would also allow the incoming water (which is relatively lower in dissolved oxygen) from Lake Wetherell to mix with Lake Pamamaroo water (which was very low in algae and higher in oxygen) before being released into the weir pool.

Additional information

- To notify the NSW Department of Climate Change, Energy, the Environment and Water of potential blackwater events email: water.enquiries@dpie.nsw.gov.au
- To view community updates issued, visit [Community updates and frequently asked questions | Water \(nsw.gov.au\)](#)
- To report dead fish, fish struggling or gasping at the water surface, or crayfish leaving the water please call the **NSW DPI Fisheries Phonenumber 1800 043 536** or fill in a fish kill protocol and report form at: <https://www.dpi.nsw.gov.au/fishing/habitat/threats/fish-kills-2019-2020/info-sheet>
- Information on recent fish deaths is available at: [Fish kills in NSW](#). When reporting, please include the name of the river/waterbody, location and date of your observation and provide photographs. If possible, please also record what species are affected and an estimate of number of each species observed.
- Further information on blackwater events can be found at the DCCEEW Water website at: [Hypoxic blackwater | Water \(nsw.gov.au\)](#)
- Additional information is also available on the Murray-Darling Basin Authority website at: <https://www.mdba.gov.au/climate-and-river-health/water-quality/fish-deaths>
<https://www.mdba.gov.au/water-management/infrastructure/menindee-lakes>

- Operational updates are available at: [WaterInsights - WaterNSW](#)
- Water quality data collected after the fish deaths at Menindee is available on the Environment Protection Authority web page at: <https://www.epa.nsw.gov.au/working-together/community-engagement/updates-on-issues/menindee-fish-kill>
- Real-time water quality data from DCCEEW-BCS monitoring buoys can be accessed from the Darling-Baaka River Health Project dashboard.
<https://sss.tago.run/dashboards/info/6574473bc8b74d0008344b05?anonymousToken=00000000-5ee2-f600-e0f3-6100270c936d>
- WaterNSW buoy data can be found here <https://waterinsights.waternsw.com.au/12104-lower-darling-regulated-river/river-data>