Department of Climate Change, Energy, the Environment and Water

Community update 14 May 2024



Community update for Menindee and Lower Darling-Baaka

Dissolved oxygen levels in the Menindee weir pool

Water quality monitoring is showing water temperatures are decreasing and dissolved oxygen levels in the Darling River at Menindee are maintaining levels above 9mg/l which is above the critical thresholds for fish health.

Inflows and water releases

Approximately 250-300 GL of inflows down the Darling-Baaka River are expected over the next 2 months. This water has good dissolved oxygen mixed through the water column, is turbid and less saline. Rather than waiting for all this water to pass into Lake Pamamaroo and mix before flowing into the weir poor, Pamamaroo outlet has been closed and this water is being released directly downstream via the Wetherell outlet to allow better quality inflows from the North to be released directly into the weir pool, at 350 ML/day.

Lake Menindee releases have been reduced from 100 ML/day to 50 ML/day, with the target of 400 ML/day at Weir 32 remaining the same. This flow rate is double the Water Sharing Plan minimum for this time of year of 200ML/day during winter.

Management of inflows - WaterNSW

With higher inflow starting to enter the upper Menindee Lakes, the water requires balancing through the Lakes system to safely manage and capture the forecast volume. The Menindee Lake System will be managed to ensure the upper lakes are filled to Full Supply Level at the completion of the inflow event, with the volume surplus to this requirement passed into Lake Menindee.

With inflow rapidly increasing, the upper lakes are rising quickly. To safely capture and manage the inflows, both Lake Pamamaroo and Lake Menindee inlet structures will be operated (the Pamamaroo outlet is closed). Currently, the Lake Pamamaroo Inlet structure is open and passing low flow from Lake Wetherell to Lake Pamamaroo. Within the next week, the inlet will be further opened to help manage the increasing inflow volume. Lake Menindee Inlet will also be opened in the next few days. At this stage, flows through this regulator may range from 6,000 to 15,000 ML/d for approximately 3 weeks, followed by a recession.

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Flow pulse not considered a viable option at this time

An additional flow pulse for the Darling-Baaka River had been considered for mid-May to improve water quality by potentially flushing algae, as well as providing opportunities for fish movement. It is estimated that this would require a large volume of water, approximately 50-60GL, delivered at 1000 ML/day for at least 50 days to travel the approx. 550 river kms to Wentworth.

There are a number of reasons why this pulse is not being delivered at this time including that:

- in terms of volume, to completely flush and displace the current water in the Darling below Weir 32, the use of around 50GL may not represent the best use of water if we face a hot Summer and need the water to manage for the prevention of fish deaths. So, it is preferable to capture and store the water in the lakes.
- algae will be transported further downstream with the potential for algae to re-establish
 whilst delivering minimal additional ecological benefits such as fish movement, as we know
 fish are less likely to move in large numbers during cooler temperatures.
- environmental water allowance of 30GL for the 2023/2024 water year is already fully
 exhausted, and the algal blooms are not significantly impacting on river ecology, so there is
 no ecological reason to release water at this time.
- water that is part of the shared resource with South Australia and Victoria is not available
 given there is no agreement at this time from the other states and use of the NSW portion
 would be likely to directly impact the NSW River Murray license holders.
- a flush would only be effective if the water currently sitting in the bottom-end of the Lower Darling-Baaka can be drawn through Lock 10 and into the Murray. However, while the flow in the Murray is so much higher than the flow in the Darling this is unlikely to be successful at this point in time. This option continues to be examined, and if the relative flow in the two systems reaches a point where it would be effective the option will be reconsidered.

Water quality and fish health

NSW DCCEEW Biodiversity, Conservation and Science Group (BCSG) are currently delivering elevated baseflows in the Lower Darling-Baaka River to improve recruitment outcomes for Murray Cod and other native fish species. As outlined above, the majority of the flow will be released from Lake Wetherell, noting that Lake Wetherell will be receiving inflows currently coming from the Northern Basin.

Water quality monitoring has indicated that these current inflows into Lake Wetherell are lower in algae concentrations and salinity compared to the current high algae levels in the Lower Darling-Baaka River.

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The Menindee Lakes are highly productive systems that support significant populations of native fish, particularly Golden Perch and especially following flow events.

The Menindee Lakes System will provide good habitat for the fish over winter where they can grow, providing opportunities for them to improve their condition and be ready for further movement opportunities towards the Murray River or upstream into the Northern Basin on warmer waters in Spring.

What does a red alert for blue-green algae mean?

Red Alert warnings apply only to untreated water at the identified location and will remain in place until monitoring and test results confirm that the risk is sufficiently diminished. People should avoid consuming untreated water from this waterbody and prevent pets and livestock from drinking this water. People should avoid recreational activities such as swimming, water skiing, canoeing and any other activity that brings them into contact with this waterbody until the red alert warning is lifted.

Potentially toxic blue-green algae may cause gastroenteritis if consumed, while contact can cause skin and eye irritations. Consumption of water containing algal toxins may cause liver damage and other health problems. Boiling the water does not remove algal toxins. People who suspect they have been affected by blue-green algae should seek medical advice.

People should not eat mussels or crayfish from red alert warning areas. A precautionary approach to eating fin fish from red alert warning areas is advised. Any fish caught should be cleaned and washed thoroughly in uncontaminated water; the internal organs should not be eaten. Avoiding fishing during a bloom is the best way to minimise risk.

Blue-green algae is naturally occurring and can reproduce quickly in still or slow-flowing water when there is abundant sunlight and sufficient nutrients.

Updates and information about blue-green algae blooms and red level warning areas can be obtained by 1300 662 077 or visiting www.waternsw.com.au/water-quality/algae

Is the drinking water safe?

Yes. Essential Water provide treated water to the township of Menindee and Wentworth Shire Council provide treated water to Wentworth, Dareton, Buronga, Gol Gol and Pooncarie communities.

The quality of drinking water for customers has not been impacted by the high levels of blue-green algae identified in the Darling River in the Far West of NSW.

Community members should continue to avoid untreated water taken directly from the river as it is not considered potable and encourages local residents to prevent pets and livestock from drinking the river water.

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Additional information

- To notify the NSW Department of Climate Change, Energy, the Environment and Water of potential blackwater events email: waterqualitydata@dpie.nsw.gov.au
- To view community updates issued, visit <u>Community updates and frequently asked questions</u> |
 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 Phoneline 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: <u>Fish kills in NSW.</u> 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