

Community update on response to fish deaths in Menindee and Lower Darling-Baaka

Increased chance of fish deaths in Lake Wetherell

Water quality conditions in Lake Wetherell are deteriorating. There is a high likelihood of stratification* occurring in the water column, which could lead to hypoxic conditions (low dissolved oxygen levels) when the water mixes (destratification**).

Maximum air temperatures are expected to be in the high 30s to low 40s over the coming week, followed by substantial decreases in maximum temperatures around 9 or 10 December 2023. This could cause a destratification** event, resulting in low dissolved oxygen levels throughout the entire water column.

If a destratification event occurs in Lake Wetherell over the next week or so there is an increased risk for fish deaths.

Unfortunately, options are limited to prevent or mitigate water quality issues and fish death risks in Lake Wetherell. Increased flows from upstream as a result of recent rain are expected in the coming weeks, which should assist with improving the water quality within Lake Wetherell.

Due to the size and limited access to waters within the lake, if a fish death event does take place, it will not be feasible to remove dead and dying fish. There is also still a lot of water within the lake that is spread across the floodplain, meaning it is very shallow in parts of the lake and oxygen depletes in those areas very quickly.

However, given the large volume of water in the lake, increased flows, and upstream connectivity, there is the opportunity for fish to move to find better water quality refuge so if a fish kill was to occur, it may not be large.

Current flows from Lake Pamamaroo

Dissolved oxygen conditions between Lake Pamamaroo and Weir 32 remain dynamic, with wide fluctuations expected over the coming week or so due to the very high predicted temperatures. This may lead to destratification within the Weir 32 weir pool on 9 or 10 December 2023, causing dissolved oxygen levels to drop dramatically.

We are monitoring conditions regularly and may need to act rapidly by altering flow rates from both Lake Pamamaroo and Lake Menindee to prevent or lessen the water quality impacts and risk of fish deaths. This may mean that we are not able to provide three days' notice of any possible changes to flows rates.

It is recommended that you monitor the height of your water pumps regularly. We expect a potential difference in water levels of between 40-50cm.

At the present time, flows of 100 megalitres (ML)/day from Lake Pamamaroo and 1,000 ML/day from Lake Menindee will continue, but as highlighted above, flows may need to be altered quickly if monitoring indicates a deterioration in water quality conditions.

Rapid rates of rise and fall, which will be noticeable in the weir pool, are likely continue over summer as we actively manage water quality conditions based on our extensive monitoring.

Additional depth-profile 'real-time' telemetered buoys will be installed next week within the weir pool. This will assist in managing the timing and size of flows and/or pulse water releases.

**Stratification means that the top layer of water tends to be warm and well-oxygenated compared to the deeper water that is colder and has less oxygen. The longer stratification goes on, the more chance there is that the oxygen in the bottom level is depleted.*

Fish deaths in Menindee

Community update: 1 December 2023



***Destratification occurs when the top and bottom layers of water mix, and can result in water that is low in oxygen.*

For more information [visit our website.](#)