

# Community update on response to fish deaths in Menindee

NSW and Commonwealth Government agencies are continuing to monitor conditions, take samples, test water and take actions to try to improve conditions, including dissolved oxygen (DO) levels, in the Murray-Darling Basin. Established contacts and processes for clean-up in the event it is required in the future are also in place.

## Is the drinking water safe?

Yes. Results of recent testing confirm the quality of the water treated and supplied by Essential Water is safe to drink.

Essential Water has increased sampling and testing of drinking water to ensure it continues to meet the Australian Drinking Water Guidelines and to ensure immediate action if a switchover for supply is required. Essential Water use laboratories certified to Australian standards and NSW Health reviews the results.

## Can I drink and bathe using water from rivers?

NSW Health advises that surface water from farm dams, rivers and creeks should not be used for drinking or cooking without appropriate treatment. This applies to any location in NSW.

Surface water may be acceptable for non-potable uses such as washing clothes, irrigation, gardening and toilet-flushing, but NSW Health recommends that water used for bathing is at least disinfected before use.

NSW Health warns that heavy rainfall and flooding increases the risk of contaminated water, which could contain disease-causing micro-organisms, chemicals or algal blooms, entering surface waters such as rivers and creeks. Blue-green algae may cause skin irritation.

Further information can be found on the NSW Health [website](#).

## How do I avoid water quality problems if I am using a rainwater tank or surface water from farm dams, rivers and creeks?

NSW Health advises that surface water from farm dams, rivers and creeks should not be used for drinking or cooking without appropriate treatment. To avoid water quality problems you should treat your water by:

- Disinfecting your water to kill disease-causing microorganisms and to protect the water should recontamination occur. Chlorine is the most common and cost-effective disinfectant used for drinking water. Drinking water can also be disinfected by bringing it to a rolling boil and then allowing it to cool. An electric kettle with an automatic shut off is sufficient for this purpose.
- Filtering your water. There are a number of different filtration methods available and the choice of filter depends on the contaminants that need to be removed. Special filters may be

necessary to deal with blue-green algae and specific chemicals. [Information on filtration can be found on the NSW Health website.](#)

- Make sure that surface water sources are fenced against livestock, and protected from septic tank overflows and spills of domestic, agricultural or industrial chemicals.
- Check up-stream for contamination sources. Your local Council, Local Land Services or Catchment Management Authority may be able to provide information about nearby activities which may affect your local water quality.

If information on water quality is not readily available, households may wish to have the water tested for key health characteristics. Regular testing would be necessary to identify all contaminants, especially due to varying weather conditions.

Further information on water quality and treatment is available on the [NSW Health website](#), in NSW Health's Private Water Supply Guidelines, the Rainwater Tanks brochures and in the [NSW Health surface water treatment fact sheet](#).

### Are dissolved oxygen levels improving?

Yes. Water quality monitoring over the past week continues to show improving oxygen levels during the day at the water surface near Menindee township. [Read the latest water quality update.](#)

To maintain an oxygenated flow in the Darling River through Menindee township, releases of water from the Lake Pamamaroo outlet are continuing although volumes are being reduced. Releases from Lake Menindee are also being reduced to assist in the flow of water from Lake Pamamaroo past Menindee town, and to manage flow targets further downstream.

### Will there be further fish deaths?

There have been reports of tens to hundreds of Bony Herring and small numbers of Carp dying in the reach below Lake Wetherell toward the town of Menindee.

There remains a high risk of further fish deaths as fish in an already stressed condition succumb to increased competition for depleting food resources and cooler temperatures. This is particularly the case for Bony Herring, which boomed during the recent floods and are now in poor condition being more susceptible to environmental stresses like low oxygen levels and abrupt decreases in temperature. To maintain an oxygenated flow in the Darling River through Menindee township, releases of water from the Lake Pamamaroo outlet are continuing although volumes are being reduced. Releases from Lake Menindee are also being reduced to assist in the flow of water from Lake Pamamaroo past Menindee town, and to manage flow targets further downstream.

These operational measures are assisting with dissolved oxygen levels downstream of Menindee Main Weir and Lake Pamamaroo outlet. With our responsibility to balance these releases against the need to maximise water in the Lakes for storage, flows are being gradually reduced and adjusted.

More information on water releases can be found on the [WaterNSW website](#).

Monitoring is ongoing to minimise the risk of water quality deteriorating in different parts of the river.

### What is being done to manage invasive fish species?

A commercial fisher is being engaged by the Department of Primary Industries (DPI) Fisheries Group to remove invasive carp species, which compete with native Bony Herring for oxygen in the water.

This will improve conditions for native fish in the Lower Darling-Barka, by reducing competition for food, space and available oxygen for our native fish.

This is expected to commence in coming days, during daylight hours.

### From what areas of the Darling-Baaka River will carp be removed?

The priority reach of the river to be targeted is from Lake Pamamaroo Outlet downstream to Weir 32, with key areas identified along the reach to focus including Lake Pamamaroo outlet, Little Menindee Creek, and Old Town Weir/Railway Bridge.

### What impact will the dead/decaying fish have on water quality?

Decaying fish create bacteria that could make people and animals unwell.

People should not drink untreated water and are advised not to swim, fish, use dead fish for bait or consumption and not allow pets to come into contact with the water in areas of large fish kills, as it may contain high levels of bacteria.

### What has happened to clean up the dead fish?

Over ten tonnes of dead fish have been removed from the river and buried as landfill. The clean-up operation is now complete.

Processes for clean-up in the event it is required in the future, are also in place.

### What is the Environment Protection Authority (EPA) advice on the water quality in the Darling River at Menindee?

The EPA released the results of water quality sampling on 6 April 2023, for water samples taken on 21 March 2023.

This water sampling was undertaken to check for contaminants following the major fish death event that commenced on 16 March 2023 on the stretch of the Darling River between Weir 1 and Weir 32 at Menindee.

Water samples were checked for pesticides, nutrients and metals, as well as the presence of algae and algal toxins to inform community about the safety and use of the water in the river.

Pesticides were not detected in the water samples.

Elevated levels of Total Nitrogen and Total Phosphorus were detected, which may result in algal blooms if these nutrients remain elevated.

Algae, including blue green algae, have been detected in all samples at levels ranging from within the Green to Amber Alert Classification. An Amber Alert is currently in place for this part of the Darling River. This test indicates that the river water is unsuitable for potable use (i.e. not suitable for drinking or bathing without treatment) and may be unsuitable for stock watering.

Metal concentrations were within guidelines for recreational use. Copper was above the water quality guideline for protection of aquatic ecosystems, but well below concentrations known to be harmful to fish. All other metals were below water quality guidelines for the protection of aquatic ecosystems.

The EPA and WaterNSW are continuing to monitor water quality in the Darling River, downstream of Menindee, following the recent fish kill event and will share results that differ from these.

Further details of the test results can be found on the EPA [website](#).

### **Is there currently harmful levels of blue-green algae in the Menindee Lakes and Darling River?**

There are currently no red alert warnings in place for harmful blue-green algae in the Menindee Lakes.

Test results received in recent weeks following the Menindee fishkill event in mid-March, identified the presence of blue-green algae, but not at levels requiring a red alert.

These results for blue green algae from sampling conducted on 21 March and 30 March are available on the WaterNSW [website](#) and are classified as an Amber alert

The results are from a total of 10 sites where wider testing was conducted by the EPA.

Results on the WaterNSW [website](#) at additional Menindee lakes sites are from routine blue-green algae sampling undertaken by WaterNSW in late February.

In the absence of algae concentrations at red alert level, WaterNSW sampling occurs monthly, as well as in response to requests from landholders and local government, or as otherwise required.

### **What does an Amber Alert mean?**

An Amber alert for blue green algae indicates that the river water is unsuitable for potable use (i.e., not suitable for drinking without treatment) and may be unsuitable for stock watering.

Contact with river water should be avoided if a scum on the water surface can be seen.

### **How do I manage my livestock if blue-green algae blooms are present?**

We know graziers are well versed in managing water for their stock. Local Land Service provides water testing kits to support them in tracking the quality of the water for their stock.

Early identification of blue-green algae blooms in livestock water sources is important. Prompt removal of livestock from the water source and access to an alternative safe water supply for stock is important if water if algae levels are too high.

There are currently no red alerts for Menindee and there have been no reports of issues in relation to livestock access to water. However, if livestock owners have concerns, they can request a water sampling kits from Local Land Services.

Water NSW provides up to date information on [algae alerts](#).

### **Is water carting continuing?**

Yes. Water carting remains available for eligible residents at this time. Community will be advised as we transition to business as usual

### **What if I need an alternative raw water supply?**

For Menindee residents, not on the Main Weir Pool who require raw water, there is a standpipe available for access to raw water drawn from Stephens Creek. This raw water is as good or better quality than water from the Menindee weir pool prior to the fish kill.

This water is **NOT** for drinking.

The standpipe is located between Wilcannia west road and the railway crossing on the Broken Hill side of the turn-off. There is a circular drive through at the location with easy access. There is currently no lock on the standpipe and is available for use by the community to fill IBC's or other tanks.

### **Is the water low in oxygen further down the river at Pooncarie?**

Dissolved oxygen at Pooncarie and further downstream has improved slightly over the last week, although some river sections remained at critical levels for native fish.

The front of low dissolved oxygen reached Pooncarie on 26 March with reports of fish struggling and dying near town and at the Pooncarie Weir. This front has progressed downstream past Burtundy Weir. However, further fish deaths are possible in the Darling River from Pooncarie through to Wentworth in coming weeks.

Water quality within the Wentworth weir pool itself has remained well above critical thresholds.

### **What water quality monitoring is being undertaken?**

Various agencies are monitoring dissolved oxygen and water temperature, with both remote monitors and field samples, with occasional field data on pH and electrical conductivity levels.

Water quality monitoring is on-going.

### **What is the status regarding the independent inquiry?**

The NSW Government has confirmed an independent inquiry will be carried out into the mass fish death event at Menindee in March 2023.

Further details will be shared with the community once finalised.

### **What is the status regarding the EPA investigation?**

The NSW Environment Protection Authority (EPA) has determined that it will treat the Darling-Barka fish kill as a "pollution incident" under the Protection of the Environment Administration Act.

Under this authority, the NSW EPA will fully investigate the potential cause/s of the mass fish kill and whether any pollution offences were committed, and regulatory action needs to be taken.

The EPA's testing to date has ruled out a pesticide pollution event, with results coming back negative for more than 600 pesticides. Samples were also tested for nutrients, metals, algal toxins

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and algae. Further testing carried out will be shared with the community as soon as possible, expected early next week.

### Where else can I find information?



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Information about the monitoring, management and maintenance of water quality, including detailed community updates from the Department of Planning and Environment, is available online: [www.industry.nsw.gov.au/water/allocations-availability/droughts-floods/drought-update/managing-drought-recovery/blackwater](http://www.industry.nsw.gov.au/water/allocations-availability/droughts-floods/drought-update/managing-drought-recovery/blackwater)

Observations of changes to water, including struggling fish or deaths can be reported directly to DPI Fisheries on 1800 043 536.

For more information about fish kills, as well as recent reports of observations and causes, visit: [www.dpi.nsw.gov.au/fishing/habitat/threats/fish-kills](http://www.dpi.nsw.gov.au/fishing/habitat/threats/fish-kills)

These types of events can be distressing to members of the community, and anyone who requires health, welfare or other support can contact local community support services. A comprehensive list of services can be located online: [www.service.nsw.gov.au/transaction/customer-support-service-infochange-service-seeker](http://www.service.nsw.gov.au/transaction/customer-support-service-infochange-service-seeker)