Snapshot:
Native fish emergency response plan 2019–20

Supporting native fish through a hot and dry summer

Native fish are an iconic part of Australia's rivers with 46 native fish species calling the rivers of the Murray–Darling Basin home. They rely on good water quality and connected rivers to survive and thrive. Native fish are an important part of Australia's heritage and are vital for Basin communities.

The mass fish death events in the summer of 2018–19 are a visible warning of the significant pressure experienced by native fish in the Basin, particularly during drought and hot, dry summers—like the one we are expecting this year.

Water managers across the Basin are working together to protect these iconic species and are ready to monitor conditions in the Basin and respond when there is a significant risk of another mass fish death event occuring.

Native Fish Emergency Response Plan 2019–20

Governments have been working hard to mitigate the risk of further fish deaths, however more fish death events are expected if current and forecasted conditions continue this summer. As we face this challenging reality, together we are working towards short and long term solutions to protect our native fish.

The Australian Government has worked with Basin state governments to prepare an Emergency Response Plan for the coming summer, to ensure actions are coordinated and resources available to respond quickly to address risks to fish populations.

Basin governments are more prepared and in a better position to support a rapid and coordinated response to emergency events. We have a range of new responses to draw on and a number of tools to rapidly mitigate threats — adding oxygen to water using aerators, relocating fish to refuges, adding water to increase and improve water quality in refuges and early warning systems are all options.

To support communities, a water quality risk map for fish has been developed that identifies 'hot spots' as conditions change. The map includes potential locations that water quality issues might occur. Water quality issues include algal blooms, blackwater, acid sulfate soils, increased salinity and layering of water, also known as stratification, which can all affect our native fish.

Find out more about how we can respond, in the *Native fish emergency response plan 2019–20* at **mdba.gov.au/native-fish-plan**

View the current risk areas on the *Water quality threat map* at **mdba.gov.au/water-quality**

Communities can get involved

Basin communities have always cared for and protected the health and resilience of their rivers. In these challenging times, communities can play a key role in giving native fish the best chance to survive. By getting involved, communities can ensure native fish management incorporates critical local knowledge and expertise.

During drought, communities can:

- report on river conditions and mass fish deaths to their relevant state agency
- keep stock away from rivers when they are dry
- support fish relocations and recovery programs
- get involved in local citizen science initiatives.

Basin governments will continue to partner with communities in a range of activities to bring back native fish, including re-planting, re-snagging, fishway construction, fish monitoring and improving water quality.

Looking to the future: protecting our native fish together

Following an Independent Assessment of the 2018–19 fish deaths in the Lower Darling River, chaired by Professor Rob Vertessy, the Australian Government committed more than $88 million to protect native fish.

Five million dollars has been committed to develop and implement a Native Fish Management and Recovery Strategy to protect and restore native fish populations in the Basin, over the long-term.

The strategy, due to be finalised by April 2020, will outline a 10 year plan for Basin governments and communities. The strategy will build on existing native fish programs across the Basin, for a coordinated approach to fish recovery.

Find out more about and follow progress of the *Native fish management and recovery strategy* at **mdba.gov.au/native-fish**

The causes of mass fish deaths

When there is less water flowing through our rivers, the system starts to disconnect, making it challenging for fish to feed, grow and breed. Dry conditions mean that fish have to rely on shrinking refuges.

As water holes get smaller, native fish face overcrowding, decreased water quality and increased competition for food and shelter. These conditions make them more susceptible to disease and even death.

As water temperatures increase and rivers become disconnected, cooler and denser water settles in the lower part of the river and doesn't mix with warmer oxygen-rich water sitting above. If this condition persists, the lower water layer may lose its oxygen (water becomes hypoxic). Fish will then congregate in the upper water layer where oxygen is available. If the different layers are disturbed and suddenly mix, the oxygenated water will be contaminated by hypoxic water. In severe conditions, fish can no longer survive in this environment.

Eyes and ears on the ground are invaluable

Report mass fish deaths to:

New South Wales: Fishers Watch – 1800 043 536
Victoria: EPA Pollution Hotline – 1300 372 842
South Australia: Fishwatch Hotline – 1800 065 522
Queensland: Department of Environment and Science – 1300 130 372
Australian Capital Territory: Access Canberra – 13 22 81

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