

# Protecting the future of the Darling River

Water for river health



Healthy rivers are the lifeblood of inland NSW. They support social, economic and environmental outcomes. In regulated rivers, the future of these important ecosystems relies on the responsible management of water.

In NSW, the Office of Environment and Heritage (OEH) manages a share of the available water to maintain and support the health of rivers and wetlands. OEH works in partnership with communities, landholders, researchers, non-government organisations and allied government departments.

The iconic Darling River is part of a connected system. Events that occur in the Darling River can have a significant impact on the southern Murray-Darling Basin.

By managing the delivery of water into the Darling River and its anabranch, OEH is able to target outcomes like fish breeding and movement, water quality, plant health and building food webs that support native animals.

Water managers recognise the critical role of the Darling River in providing outcomes for the whole of the southern connected basin including the



Murray River, Edward–Wakool, Murrumbidgee and Victorian tributaries such as the Goulburn River. Work is ongoing to protect and enhance the plants, animals and processes that are essential to the future of the river system.

### Water for the Darling Anabranch

OEH is currently managing the release of 100 gigalitres of environmental water from Lake Cawndilla into the Darling Anabranch.

The aim of this watering event is to provide a flushing flow for the anabranch that will provide passage for native fish (in particular golden perch), support other native plants and animals and improve water quality.

Lake Cawndilla – the southernmost lake within the Menindee system – is the only available release point for juvenile golden perch to enter the Darling Anabranch and the rivers of the southern connected basin.

Golden perch numbers within Lake Cawndilla and the other three Menindee Lakes have surged as a result of natural flooding in the Darling in 2016. Environmental water is now providing a connection between their nursery habitat in Lake Cawndilla and the rivers of the southern connected basin.

Without this link, these golden perch would be stranded in Lake Cawndilla, vulnerable to the lake drying out. They would have no opportunity to escape unless another large natural flow occurred.

### Flows for the lower Darling River

The lower Darling River is home to a significant population of endangered Murray cod. While the population of cod is known to include a range of ages which indicates regular past breeding, an increase in the number of times the lower Darling River has ceased to flow has greatly reduced opportunities for breeding.

In 2016, Murray cod were stranded in a series of small, shallow, saline ponds along the lower Darling River. OEH managed an environmental water delivery to connect the pools. Without this environmental flow it is unlikely these fish would have survived beyond six months.

After a natural flow event in late 2016, plans were approved for a further release of environmental water to support Murray cod breeding. This water delivery provided an opportunity for fish to complete their breeding cycle and also boost the food web in order to sustain the population. Monitoring showed a significant positive breeding response, with possibly the greatest number of juvenile Murray cod recorded in over 20 years.

The flow also contributed to improving water quality and reduced salt readings.

Cover photo: the Darling Anabranch, P Brown.

Above left to right: Murray cod, G Schmida; a researcher on the Darling Anabranch, P Brown; water arrives, P Brown.

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