



Australian Government

Commonwealth Environmental Water Office



Monitoring Evaluation Research

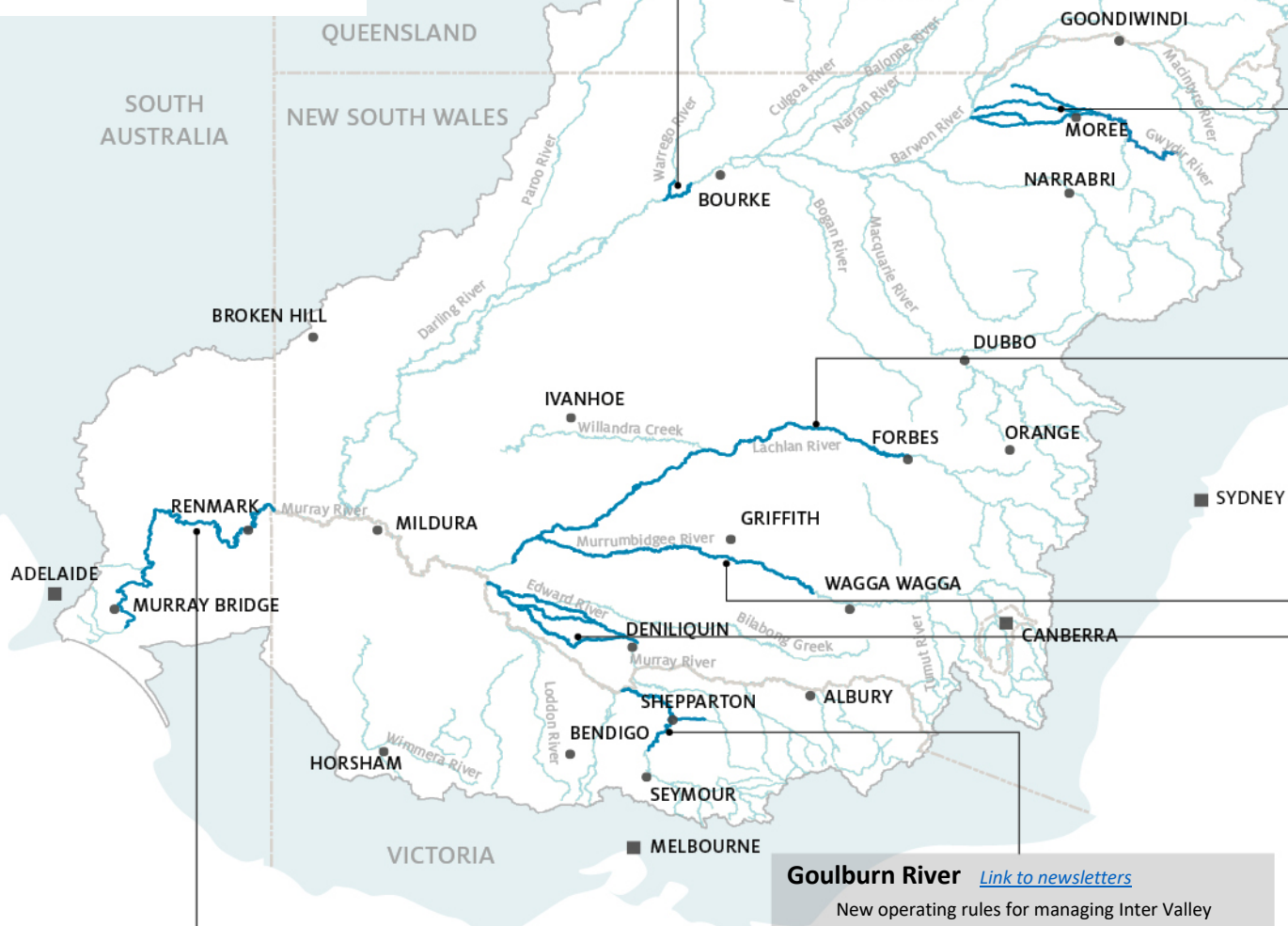


### Selected Area Highlights

Outcomes Newsletters

Issue 5 (Jul-Sep 2020)

[www.flow-mer.org.au](http://www.flow-mer.org.au)



#### Junction of Warrego and Darling [Link to newsletters](#)

The Lower Warrego is an important nursery for native fish. Young-of-year Golden perch, Bony herring, Hyrtl's catfish and Spangled perch were all recorded in Jul/Aug.

Prolonged inundation allowed the invertebrate community to shift in dominance from bottom dwelling species to pelagic species like water fleas, which are known to be a dominant food resource for juvenile fish.

#### Gwydir River System [Link to newsletters](#)

Gamilaroi Yuwaalaraay artist, Lakkari Pitt, shares her cultural interpretation of ecological indicators in the Gwydir. [Link to Lakkari's art](#)

Five years of data have highlighted a positive relationship between the abundance of spotted marsh frogs and eastern sign bearing froglets and the delivery of water for the environment.

During fish surveys an abundance of juveniles were caught representing 11 species, including Murray cod, Freshwater catfish and Bony herring. Most native species present had spawned and recruited in the past year.

#### Lachlan River System [Link to newsletters](#)

The reeds in the central reedbed of the Great Cumbung Swamp had green shoots growing taller and thicker than sites which had not been inundated in 2020. Drier sites, which hadn't received flooding since 2016, had sparse and short reeds and a thick cover of rain-respondent species such as exotic smooth mustard.

The presence and abundance of microscopic plants and animals has a big influence on smaller animals (bugs, shrimp, prawns, yabbies and small fish) that support populations of big fish and fish-eating birds.

#### Murrumbidgee River System [Link to newsletters](#)

With expectations of above average rainfall it looks to be a busy and productive spring. Several watering actions are underway, and others planned for when the timing is right. If flows trigger colonial waterbird breeding, water for the environment will be used to maintain water levels at rookery sites.

Over 40 scientists, researchers and agency staff met to discuss frog and reptile responses to environmental water management across the Murray Darling Basin (sponsored by the Institute of Land, Water and Society).

#### Lower Murray River [Link to newsletters](#)

Lab analysis of fish sampled in 2019-20 has confirmed that most perch in the Lower Murray are 7-10 years old, spawned during high flow periods in 2009-2012. For the 6<sup>th</sup> consecutive year, no Golden perch recruitment was detected in 2019/20

Native plant species richness was higher in areas inundated by water for the environment, compared to the adjacent areas not inundated. The first survey was undertaken in Dec 2019 and more planned for late 2020/early 2021.

#### Goulburn River [Link to newsletters](#)

New operating rules for managing Inter Valley Transfer appear to have reduced the risks of mass bank failure, but the duration of inundation still exceeded critical limits for vegetation and ultimately resulted in the loss of vegetation on the lower banks.

Nationally threatened Trout cod were recorded for the third year in a row during annual fish community surveys. And Murray cod abundance appears to be increasing following fish kills in 2017.

#### Edward/Koety-Wakool river system [Link to newsletters](#)

A new social research project looks to develop an understanding of the range of expectations of, and attitudes towards, environmental water and its management. Anyone who feels a connection to or is influenced by the Edward/Koety-Wakool system is welcome to participate in the project. Visit the newsletter link for more information.

Water for the environment is used to support the recovery and maintain the ecosystem following the hypoxic blackwater event associated with the unregulated flood in 2016. Fish monitoring shows Murray cod adult abundance continues to increase.