



Department of Planning, Industry and Environment

# Border Rivers Catchment

Water for the Environment: Annual Priorities 2021-22



# Water for rivers and wetlands



In 2021-22, water managers will focus their efforts on supporting native fish populations in the Severn, Dumaresq, Macintyre and upper Barwon rivers.

Access to water for the environment is limited in the catchment. The NSW Government works in partnership with the Commonwealth Environmental Water Holder to manage available resources.

The Pindari Stimulus Flow is a small volume of planned water that may be available for use if triggered by inflows into Pindari Dam. If the Pindari stimulus flow trigger is not met, the flow will not be delivered unless it can be negotiated under rules in the new Water Sharing Plan.

Not all environmental demands can be met by water for the environment. Some demands are met by regulated water deliveries for consumptive purposes, while others are met by unregulated (natural flows) events.

The scope of deliveries possible in the NSW Border Rivers is limited mainly to smaller in-channel events.



# Weather and water forecast

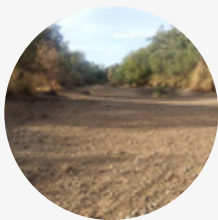


In April 2021, the Bureau of Meteorology confirmed the 2020–21 La Niña has now passed. Climate model outlooks indicate the El Niño–Southern Oscillation (ENSO<sup>1</sup>) is now neutral with no sign of either La Niña or El Niño developing at least until September 2021. Rainfall was below average and temperatures warmer than average in May and June for eastern mainland Australia, including the Border Rivers catchment, and this will continue in July. However, water availability is predicted to be higher than average.

Reserves of held Commonwealth and NSW water are also likely to increase and, along with carryover, small volumes will be available for use during this water year.

Water managers have prepared watering plans that consider a range of weather and water availability scenarios. This is known as resource availability scenario planning. Dry conditions are forecast for the Border Rivers catchment in 2021–22.

## Resource availability scenario



### Very dry

#### Main aim: Protect

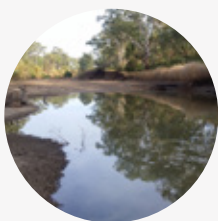
Avoid critical loss  
Maintain key refuges  
Avoid catastrophic events



### Dry

#### Main aim: Maintain

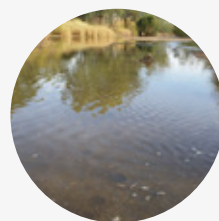
Maintain river functioning  
Maintain key functions  
of high priority wetlands



### Moderate

#### Main aim: Recover

Improve ecological health  
and resilience  
Improve opportunities  
for plants and animals to  
breed, move and thrive



### Wet to very wet

#### Main aim: Enhance

Restore key floodplain and  
wetland linkages  
Enhance opportunities  
for plants and animals to  
breed, move and thrive

<sup>1</sup>ENSO: The interaction between the sea surface and atmosphere over the Pacific Ocean which results in dryer or wetter conditions (El Niño or La Niña).

# Key planned actions for 2021-22



## Connectivity

Available held water for the environment may be used to provide a low connection flow along the Dumaresq and Macintyre-Barwon system to replenish and refresh pools if more water becomes available in the storages.

If moderate sized natural events occur, water may be added to extend the duration and distance this water will reach downstream. The release of held water for the environment may be used to increase the peak slightly to inundate higher benches and low anabranches and their connected wetlands.

If larger natural events occur, a further proportion of these flows can be protected from extraction by use of supplementary and unsupplemented licences.



## Native fish

Licensed water for the environment may be used to support native fish movement, breeding and recruitment outcomes in the Dumaresq River downstream of Glenlyon Dam and planned water for the environment in the Severn and Macintyre rivers downstream of Pindari Dam.

Native fish will also benefit from any delivery events targeting connectivity.



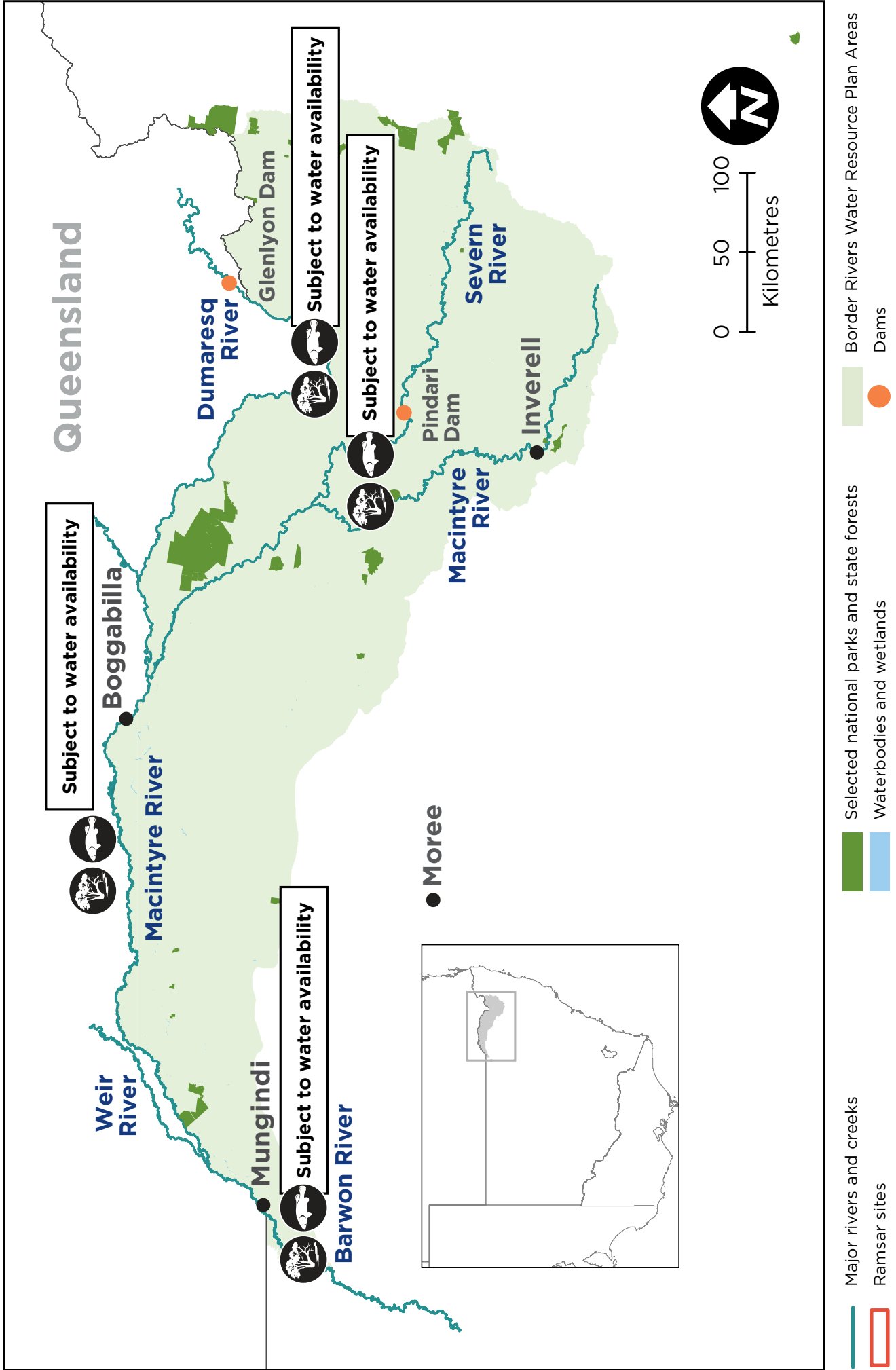
## Vegetation

Riparian and aquatic vegetation will benefit from any events under the connectivity and native fish actions if delivered.



## Waterbirds

Waterbird benefits will occur from any actions taken under the connectivity and native fish actions above if delivered.



**Figure 2** Map of proposed annual priority targets in the Border Rivers Water Resource Plan area 2021-22.

## How we make decisions



The Department of Planning, Industry and Environment (the Department) supports the health and resilience of rivers and wetlands by delivering water for the environment where and when it is needed.

We use the best available science, management expertise and experience to manage water across the landscape.

This statement of annual priorities identifies the waterways and wetlands that are likely to receive water.

Our decision-making process considers:

- expected availability of water in the coming year
- conditions of the previous year
- current health of the plants and animals in these ecosystems.

The NSW Government works with the Commonwealth Environmental Water Holder to manage water in the catchment.

In other catchments, we use Environmental Water Advisory Groups (EWAG) to help make decisions on the use of environmental water. While the Border Rivers catchment doesn't currently have an EWAG, the intention is to establish one soon.



## What is water for the environment?

Water for the environment is a share of the water in dams and rivers that is set aside to support the long-term health of local rivers, creeks and wetlands. Healthy rivers carry water to homes, farms, schools and businesses. Rivers and wetlands are important cultural and spiritual sites for Aboriginal people and the broader community.

# About the catchment



The NSW Border Rivers catchment covers an area of 24,000 square kilometres. The catchment hugs the Queensland border. The catchment is influenced by the management of water on both sides of the border. Pindari Dam, on the Severn River (New South Wales), and Glenlyon Dam, on Pike Creek (Queensland), are two of the major water storages influencing the catchment. Morella Watercourse, Boobera Lagoon and Pungboulal Lagoon located on the Macintyre River floodplain are important cultural sites for Aboriginal people. These wetlands are also listed as a site of national importance in the Directory of Important Wetlands in Australia.

**Table 1** Expected environmental water volumes available at 1 July 2021.

Source	Maximum volume available (gigalitres – GL)	Volume expected 1 July under current conditions (gigalitres – GL)
<b>Planned environment water</b>		
Discretionary Planned Environmental – Pindari Stimulus Flow	8.0 GL	7.6 GL
<b>Water licenced to the Commonwealth</b>		
General security	2.806 GL	0.896 GL (TBC)
Supplementary	1.437 GL	Event dependent
Medium (Qld)	15.54 GL	1.185 GL
Unsupplemented (Qld)	19.986 GL	Event dependent

**Note:** This is an indicative summary of expected volumes to be available. For further detail and information on available volumes, please contact the region via Department enquiries on 1300 361 967. 1 gigalitre = 1000 megalitres; 2.5 megalitre = 1 Olympic swimming pool

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Cover photo: Log across the river looking upstream on the Dumaresq River at its confluence with the Macintyre River (David Preston/DPIE); Page 2: The Macintyre River (Matthew Miles/DPIE), Severn River (Tanya Weir/DPIE); Page 3: Budelah Nature Reserve is dominated by floodplains of heavy clay soils with small hills of sand. (Jessica Stokes/DPIE), Infographic (J Humphries/DPIE); Page 6: Budelah Nature Reserve is dominated by floodplains of heavy clay soils with small hills of sand. (Jessica Stokes/DPIE), Macintyre River in Kwiambal National Park. (Simone Cottrell/DPIE); Page 7: Budelah Nature Reserve is dominated by floodplains of heavy clay soils with small hills of sand. (Jessica Stokes/DPIE).