



Department of Planning, Industry and Environment

# Intersecting Streams Catchment

Water for the Environment: Annual Priorities 2021-22



# Water for rivers and wetlands



The Intersecting Streams rely on rainfall in southern Queensland and connection across the NSW-Queensland border to generate the flows that support rivers and wetlands in this unique area.

The region saw above average rainfall in late 2020 to early 2021. This rainfall created periods of high flow for some rivers in early 2021, up to 2200 megalitres per day in the Paroo (at Willara gauge), and 900 megalitres per day in the Moonie (at Gundablouie gauge). This rainfall generated significant flow to Narran Lakes and the Paroo and Bulloo river wetlands. Significant flow events did not occur within other rivers in the Intersecting Streams catchment between 2020-21.

With drought in the northern basin continuing to ease, critical environmental demands have reduced, particularly in relation to connectivity. In 2021-22, the focus of water managers will be to optimise the outcomes of recent flows with a focus on creating opportunities for northern basin recovery.



# 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 2021 for eastern mainland Australia, including the Intersecting Streams catchment, and this will continue in July.

Water availability is predicted to be higher than average. Commonwealth unregulated licenses are likely to be triggered with flows likely to be protected into the Barwon–Darling and Narran Lakes.

Water managers have prepared annual watering plans that consider a range of weather and water availability scenarios. This is known as resource availability scenario planning. There remains a significant degree of uncertainty around resource availability. On balance, the outlook is rated as dry to moderate.

## 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



## Waterbirds

In 2021-22, water is likely to be retained in Narran Lake as a result of inflows which commenced in January 2021. A priority is to ensure adequate vegetation condition and water level should further inflows trigger a colonial waterbird breeding event in spring 2021.



## Native fish

A key priority is to support stocks of native fish and provide opportunities for them to breed and disperse into secure habitats.



## Vegetation

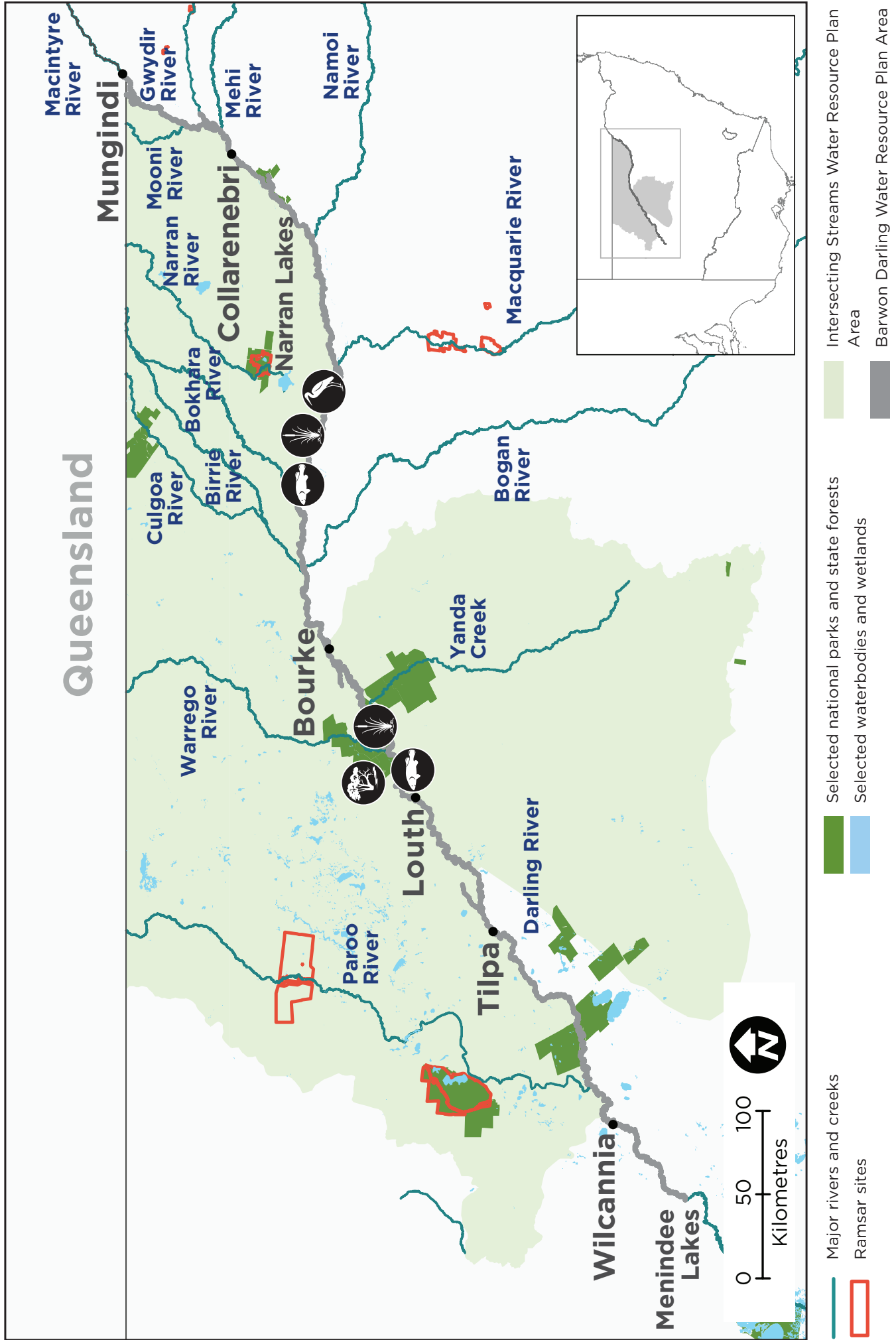
The water that reached the Narran Lakes in March-April 2021 is expected to have significantly improved the vigour of vegetation in the lakes system. Opportunities that arise in 2021-22 to increase the duration of inundation of water-dependent vegetation should be prioritised.

In early 2020, flows in the Warrego River inundated vegetation communities on the Toorale western floodplain wetland, connecting through to the Darling River. Repeated inundation in 2021-22 will increase vigour and diversity of wetland vegetation in this location. This will be balanced against the needs of the downstream Barwon-Darling system.



## Connectivity

As these systems are typically intermittent, further flows and inter-system connections depend on rainfall occurring throughout the year.



**Figure 1** Map of proposed annual priority targets in the Intersecting Streams Water Resource Plan area 2021-22.

## How we make decisions



With a series of unregulated NSW rivers fed from Queensland, watering actions in the NSW portion of the Intersecting Streams area cannot be managed in the same way that water for the environment can be managed in other regulated systems. Environmental outcomes are typically generated by managing water for the environment through systems and reducing the volume of water that can be taken from rivers.

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

## 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. The waterways are important cultural and spiritual sites for Aboriginal people and the broader community.

## About the catchment



The Intersecting Streams cover an area of approximately 120,431 square kilometres. This area comprises the NSW sections of five key river systems: the Paroo, Warrego, Culgoa-Birrie-Bokhara-Narran connected system and Moonie River that originate in Queensland and terminate in New South Wales.

There are three listed Ramsar sites and areas indicated in the Directory of Important Wetlands located in the Paroo, Warrego and Narran water sources and an Important Bird Area (IBA) identified by BirdLife Australia.

Traditional Owner groups in the Intersecting Streams area include Budjiti, Euahlayi, Guwamu/Kooma, Kamilaroi, Kunja, Murrwarri and Ngemba.

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

Source	Maximum volume available (megalitres – ML)	Volume expected 1 July under current conditions (megalitres – ML)
<b>Water licenced to the Commonwealth</b>		
<b>Moonie</b>		
Qld unsupplemented	5671 ML	Event-dependent
<b>Condamine-Balonne</b>		
Nebine unsupplemented	5920 ML	Event-dependent
Lower Balonne unsupplemented	68,317 ML	Event-dependent
Condamine-Balonne unsupplemented	1062 ML	Event-dependent
Condamine-Balonne overland flow	96,741 ML	Event-dependent
Upper Condamine unsupplemented	841 ML	Event-dependent
Upper Condamine groundwater	40,224 ML	N/A
St George (medium)	45 ML	0 ML
<b>Warrego</b>		
Qld unsupplemented	39,455 ML	Event-dependent
NSW unregulated	17,826 ML	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