

How we make decisions

The Department of Planning, Industry and Environment (the Department) is supporting 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 flow-dependent plants and animals.

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. Rivers are important cultural and spiritual sites for Aboriginal people and the broader community.

About the Namoi catchment

The Namoi catchment is located in north-western NSW covering an area of approximately 42,000 square kilometres.

The regulated rivers in the system are the Namoi and Peel rivers, with major water storages being Keepit, Split Rock and Chaffey dams. Significant environmental values in the catchment include the Namoi River between Gunnedah and Narrabri which provides critical habitat for significant native fish biodiversity and threatened species. Also, many small lagoons, wetlands and anabranches on the floodplain downstream of Narrabri provide habitat for many waterbirds. Lake Goran, in the unregulated Mooki catchment, is listed as a wetland of national significance.

The Namoi catchment wetlands and rivers also support important Aboriginal cultural heritage values for the Kamilaroi (Gomeri) people.



DEPARTMENT OF PLANNING, INDUSTRY AND ENVIRONMENT

Namoi catchment

Annual Environmental Watering Priorities 2020–21



Expected environmental water volumes available at 1 July 2020

Source	Maximum volume available	Volume expected at 1 July under current conditions
Peel Planned environmental water		
Environmental water allowance	5,000 megalitres	0 megalitres
Peel Water licensed to the Commonwealth		
General security	1,257 megalitres	0 megalitres
Upper Namoi licensed to the Commonwealth		
General security	105 megalitres	0 megalitres
Lower Namoi licensed to the Commonwealth		
General Security	13,548 megalitres	0 megalitres

Note: This is an indicative summary of volumes expected to be available. For further detail and information on available volumes, please contact the region via Department enquiries on 1300 361 967. It is possible under drought conditions that a small amount of environmental water may be made available in the Peel as a special provision related to the operation of the town water supply pipeline.

1 megalitre = 1,000,000 litres

2.5 megalitre = 1 Olympic swimming pool

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Cover photo: Residual pool in the Namoi River near Carroll. Photo: Peter Keyte/DPIE.

Page 2 infographic: J Humphries/DPIE.

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Water for rivers and wetlands

In February 2020, after 10 months of cease-to-flow conditions in the regulated Namoi, a low-pressure system brought flows to the entire Namoi-Peel river system. These flows replenished water levels, refreshed water quality and boosted productivity. The flows supported riparian vegetation and inundated flood runners (warrambools) below Wee Waa.

Despite a slight improvement in the storage volume of Keepit and Split Rock dams, the chances of another year with no water for the environment remains. In 2020–21, water managers may focus efforts on supporting native fish populations in the Namoi and Peel rivers.

If the drought continues, the greatest risk in the Namoi will be the ability to provide flows that protect refuge habitat along the length of the lower Namoi River to Walgett. Supporting refuges will allow native fish species to survive and provide the breeding stock to help their populations recover once the drought breaks.

The Peel River continues to be managed under Stage 4 drought operations. To extend and secure the town water supply for Tamworth, it is proposed

when Chaffey Dam is below 20%, to supply water to Tamworth via a pipeline. This will likely result in periodic cease-to-flow conditions in the Peel River below Chaffey Dam to Tamworth, and potentially to Carroll Gap. This presents a significant risk to native fish, platypus and other water dependent plants and animals.

Weather and water forecast

In July 2020, the Bureau of Meteorology has forecast the Indian Ocean Dipole (IOD¹) and El Niño–Southern Oscillation (ENSO²) in Australia to remain neutral, with a shift toward wetter than average conditions and warmer than average temperatures through winter–spring 2020. The ENSO Outlook is currently at La Niña WATCH, indicating the chance of La Niña forming in 2020 is around 50%.

Water managers have prepared watering plans that consider a range of weather and water availability scenarios. This is known as resource availability scenario planning. While climate models suggest a shift toward wetter conditions, dam levels remain low. There remains a significant degree of uncertainty around resource availability. On balance, the outlook is rated as dry to moderate.

¹ IOD: The difference between sea surface temperatures between two areas of the Indian Ocean.

² 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). Both IOD and ENSO are considered key influences of weather in Australia.

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



Key planned actions for 2020–21



Native fish

- No specific actions planned.
- Water managers will incorporate water release strategies to help support native fish refuge where possible.
- Under proposed drought operations in the Peel, water managers will use available water to support refuges. However, there is expected to be little water available, and other measures may be required to ensure capacity to recover from drought if maintained.



Vegetation

- No specific action planned.
- Riparian vegetation will be supported where regulated flows extend.



Waterbirds

- No specific action planned. We expect to see no improvement in the diversity and abundance of waterbirds as they seek alternative habitat.
 - Refuge pools will support some minor waterbird habitat.
- ### Connectivity
- No specific actions planned.
 - Under drought operation, the Namoi River below Wee Waa to Walgett is likely to remain at cease to flow, with waterholes likely to continue to dry. Under this scenario, the Peel River is not expected to connect with the Namoi River.
 - Depleted groundwater levels in alluvial aquifers may also reduce the persistence of pools and increase the proportion of water accounted as operational losses.

Map of proposed annual priority targets in the Namoi Water Resource Plan Area 2020–21

Note: There are currently no plans to undertake environmental watering under current conditions.

