

How we make decisions

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

As rainfall is hard to predict, 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.

Community-based environmental water advisory groups provide feedback and advice to DPIE on the management of water for the environment.

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. In the Gwydir catchment, rivers and wetlands are important cultural and spiritual sites for Kamilaroi (Gomerroi) people.

About the Gwydir catchment

The Gwydir catchment covers 25,596 square kilometres. The smaller, eastern upland creeks mainly flow into the Gwydir River upstream of Copeton Dam. Downstream, on the western floodplain, the Gwydir River splits into its main distributaries – the Mehi River (south), Carole Creek (north), Lower Gwydir (or Big Leather) and Gingham (central). The Lower Gwydir wetlands support the state's largest stand of marsh club rush, which is protected by NSW legislation. The Gingham Watercourse contains important colonial waterbird breeding habitat. The Gingham and Lower Gwydir watercourses are home to four wetland parcels, listed under the Gwydir Ramsar landholder agreement.



NSW DEPARTMENT OF PLANNING, INDUSTRY AND ENVIRONMENT

Gwydir catchment

Annual Environmental Watering Priorities 2019–20



Expected environmental water volumes available at 1 July 2019

Source	Maximum volume available	Volume expected at 1 July under current conditions
Planned environmental water		
Environmental water allowance	90 gigalitres	23.3 gigalitres
Water licenced to NSW		
General security	17 gigalitres	2.2 gigalitres
Supplementary	3 gigalitres	Event-dependent
High security	1.2 gigalitres	1.2 gigalitres
Water licenced to the Commonwealth		
General security	89.5 gigalitres	11.6 gigalitres
High security	4.5 gigalitres	4.5 gigalitres
Supplementary	20.4 gigalitres	Event-dependent

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 DPIE enquiries on 1300 361 967.

1 gigalitre = 1000 megalitres

2.5 megalitre = 1 Olympic swimming pool

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Water for rivers and wetlands

In 2019–20, water managers will focus on protecting key water dependent assets such as native fish communities and supporting the resilience of rivers and wetlands to ensure they are ready to respond when rain and river flows return to the catchment.

The Gwydir catchment has been subject to an extended dry period since 2016. Water for the environment has been used to support rivers and wetlands through this dry phase.

During the 2018-19 water year, water for the environment was released into the Gwydir Wetlands systems and Mallowa Creek Watercourse. Water for the environment was also used to protect priority river reaches in the Carole, Mehi and Gwydir rivers from complete drying. A small watering trial was conducted into the Ballin Bora Creek, an anabranch of the Mehi River.

A flow was also delivered into the Mehi River to connect the Gwydir system with the Barwon River. This flow

Resource availability scenario

connected the northern rivers, improved water quality and provided habitat and food sources for native fish. Water from this delivery filled the Brewarrina weir in early July 2019, flowing downstream towards the junction of the Barwon and Culgoa rivers.

Weather and water forecast

Dry conditions are forecast to continue in the Gwydir catchment. While availability of planned water for the environment is likely to be low, reserves of held Commonwealth and NSW water, along with carryover, are low to moderate.

Work will continue to protect core wetlands and priority river reaches of the Carole Creek, Mehi and Gwydir rivers. The aim is to maintain close to the current state of these assets until the current dry phase has passed.

Water managers have prepared watering plans that take into consideration a range of weather and water availability scenarios. This is known as Resource Availability Scenario planning. Very dry conditions are forecast for the Gwydir catchment in 2019–20.

Key planned actions for 2019–20



Waterbirds

- Substantial natural rainfall and river flows would be required to initiate a small delivery of held water into either the Mallowa Creek or Gwydir Wetlands this season. General, high security and supplementary licenses may be used for this purpose; however, on their own, they are unlikely to be beneficial this season.
- A small volume of up to 100 megalitres is likely to be delivered to Whittaker's Lagoon, an isolated wetland remnant located on the Mehi River floodplain, in Spring 2019. This asset has dried down for an extended period and serves as refuge for local waterbirds and wildlife during dry times.



Native fish

- Water (12 gigalitres) has been set aside to support native fish populations and aquatic communities in the priority river reaches of Carole Creek, Mehi and Gwydir rivers.



Vegetation

- Substantial natural rainfall and river flows would be required to initiate a small delivery from held water into either the Mallowa Creek or Gwydir Wetlands this season. General, high security and supplementary licenses may be used for this purpose; however, on their own they are unlikely to be beneficial this season.



Connectivity

- Currently, there are plans to provide water for basic needs in the Carole Creek, Mehi and Gwydir rivers to avoid total loss of fish communities during extended dry periods.
- In the event that early spring rainfall generates substantial river flows, water for the environment may be used to provide a small connectivity flow into the Barwon River.

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



Map of proposed annual priority targets in the Gwydir Water Resource Plan Area 2019–20

