

How we make decisions

OEH 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.

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 (EWAGs) provide feedback and advice to OEH on the management of water for the environment.

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 supports 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.



OFFICE OF ENVIRONMENT & HERITAGE

Gwydir catchment

Annual Environmental Watering Priorities 2018–19

Expected environmental water volumes available at 1 July 2018

Source	Maximum volume available	Volume expected at 1 July under current conditions
Planned environmental water		
Environmental water allowance	90 gigalitres	74 gigalitres
Water licenced to NSW		
General security	17 gigalitres	1.6 gigalitres (TBC)
Supplementary	3 gigalitres	Event-dependent
High security	1.2 gigalitres	1.2 gigalitres
Water licenced to the Commonwealth		
General security	89.5 gigalitres	72.2 gigalitres (TBC)
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 OEH enquiries on 1300 361 967.

1 gigalitre = 1000 megalitres

2.5 megalitre = 1 Olympic swimming pool

Office of Environment and Heritage,
59 Goulburn Street, Sydney South NSW 2000.
Phone: 131 555 (environment information
and publications requests);
Email: info@environment.nsw.gov.au;
Website: www.environment.nsw.gov.au.

Cover photo: Gwydir valley, C Hayne.
Page 2 infographic: J Humphries/OEH.

ISBN 978 1 92575 403 2 OEH 2018/0368 July 2018



Water for rivers and wetlands

In 2018–19, water managers will continue to build on the success of previous years through the careful management of water for the environment.

A proactive approach is planned targeting whole of system health in the Gingham and Lower Gwydir Watercourses and Mallowa Creek watercourse.

Last year, the Gwydir catchment and floodplain, west of Moree, experienced low water availability and extended dry spells.

Two natural flows occurred during the water year, one small event in July and a moderate event in October. Water held for the environment was used throughout the season to achieve outcomes for native fish, waterbirds, wetland productivity and connectivity.

Weather and water forecast

A warm, dry season is forecast for the Gwydir catchment. While the availability of planned water for the environment is likely to be low, reserves of held Commonwealth and NSW water, along with carryover, are moderate to high.

To maintain the resilience of wetlands and rivers, water managers will take a proactive approach to watering. This approach aims to address the decline of wetland communities in the western Gingham and Lower Gwydir Watercourses and Mallowa Creek watercourse.

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. Dry conditions are forecast for the Gwydir catchment in 2018–19

Key planned actions for 2018–19

Waterbirds



- Flows (up to 20 gigalitres) will be delivered into the Mallowa Creek watercourse with an initial delivery of 10 gigalitres followed by a further 10 gigalitres after harvest. These flows will support over 2000 hectares of wetland vegetation and provide waterbird feeding habitat following extended dry conditions.
- Flows (up to 60 gigalitres) will also be delivered into the Gingham and Lower Gwydir Watercourse systems which will benefit refuge sites and western wetland communities during extended dry conditions. These wetlands provide significant feeding and breeding habitat for waterbirds, and provide habitat for other animal species, such as frogs.

Connectivity



- Flows into the Gingham and Lower Gwydir Watercourse systems (part of the 60 gigalitres) and Mallowa Creek (part of the 20 gigalitres) will provide connectivity between the rivers and floodplains, and support wetland vegetation communities, waterbird diversity and populations, flows for threatened native fish populations and the inundation of eastern Gwydir Ramsar sites.
- Currently, there are no plans to provide water for the environment to the Mehi River or Carole Creek, or connectivity to the Barwon River.

Native fish



- Flows in the Gwydir River (part of the 60 gigalitres event) and Mehi River (part of the 20 gigalitres event) systems will support native fish populations, such as olive perchlet, golden perch, Murray cod and eel tailed catfish..

Vegetation



- Flows (as part of the 60 gigalitres event) will be delivered into the Gingham and Lower Gwydir Watercourse systems in two parts: an initial 30 gigalitres (15 gigalitres each into Gingham and Lower Gwydir systems) to prime the system, followed by a further 30 gigalitres after winter crop harvest. Flows to these systems will provide connectivity between the rivers and wetlands, support wetland vegetation communities, support waterbird diversity and populations, replenish fish refuges and inundate Gwydir Ramsar sites.
- Flows in the Mallowa Creek watercourse (part of the 20 gigalitres) will support over 2000 hectares of wetland vegetation habitat, waterbird diversity and populations and other native animals.

Gwydir 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

- Ramsar sites
- Gwydir inner floodplain
- Mallowa wetlands
- NPWS reserve

- Gwydir Water Resource Plan Area
- Major rivers and watercourses

0 9 20
Kilometres



Map of proposed annual priority targets in the Gwydir Water Resource Plan area 2018–19

