How we make decisions

Department of Planning, Industry and Environment (DPIE) 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 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 Lachlan catchment, rivers and wetlands are important cultural and spiritual sites for Aboriginal people, as well as the broader community.

About the Lachlan catchment

The Lachlan catchment covers an area of 90,000 square kilometres. Nearly 1300 kilometres of the 1400-kilometre river is regulated by water storages, of which Wyangala Dam is the largest at 1220 gigalitres. The river originates near Gunning in the tablelands and terminates at the Great Cumbung Swamp. Important sites include the Booligal Wetlands, Lake Cowal, Great Cumbung Swamp and Lachlan Swamps, all of which are listed in the Directory of Important Wetlands in Australia. The Lachlan catchment has important Aboriginal cultural heritage values.

Expected environmental water volumes available at 1 July 2019

Source	Maximum volume available	Volume expected at 1 July under current conditions
Planned environmental water		
Wyangala environmental water allowance	10 gigalitres	0 gigalitres (volume may become available during year dependent on inflows and total volumes in general security accounts)
Water quality allowance	20 gigalitres	20 gigalitres
Lake Brewster environmental water allowance	10 gigalitres	0 gigalitres (volume may become available during year dependent on inflows and there being active storage in Lake Brewster)
Translucent flow	Up to 350 gigalitres	Depends on significant inflows to reach triggers
Water licenced to NSW		
High security	1.8 gigalitres	1.4 gigalitres
General security	37.5 gigalitres	19.9 gigalitres
Water licenced to the Commonwealth		
High security	0.9 gigalitres	0.8 gigalitres
General security	87 gigalitres	21.2 gigalitres

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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NSW GOVERNMENT

NSW DEPARTMENT OF PLANNING, INDUSTRY AND ENVIRONMENT

Lachlan catchment

Annual Environmental Watering Priorities 2019–20

environment.nsw.gov.au

Water for rivers and wetlands

In 2019–20, water managers will continue to build on the gains of previous years through the careful management of water for the environment.

During 2018-19, managed watering events allowed native fish to move and breed along the length of the Lachlan River and its anabranches. When flows arrived at the Great Cumbung Swamp, they supported partial inundation of the critical reed beds habitat, open water bodies and fringing wetland vegetation. Waterbirds also benefitted from this and other refuge and foraging habitat from Booligal to the Cumbung.

Water for the environment was delivered to Lake Brewster to support aquatic plant establishment and recovery in the constructed outflow wetlands. The Water Quality Allowance (WQA) was used for the first time to flush blue green algal blooms and prevent blooms re-forming in the lower Lachlan by breaking up stratification and maintaining acceptable levels of dissolved oxygen.

This year, water managers plan to boost productivity and build system-scale resilience where water is available. If dry conditions continue into extreme dry, the focus will shift to providing drought refuges and avoiding irretrievable loss of species and habitat.

Weather and water forecast

In the Lachlan catchment, availability of planned environmental water is substantially dependent on inflow conditions, while availability of licenced or held environmental water from carryover is expected to be relatively high compared with other catchments. However, without further rain and inflows in autumn and winter, the Lachlan Catchment will shift towards drought management (Extreme Events Policy) with the potential for restricted access to carryover water.

Conditions are likely to be warmer and drier than average in the Lachlan catchment during the coming year.

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 to very dry conditions are forecast for the Lachlan catchment in 2019–20.

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 2019–20

Connectivity and primary productivity

- Flows are planned for Booberoi Creek and the lower Lachlan River system (up to 15 gigalitres) to maintain connectivity along the length of the Lachlan River and its anabranches and boost end-of-system floodplain flows. This will help to maintain water quality and enhance in-stream productivity. These flows will also protect the core reed beds and other non-woody vegetation communities of the Great Cumbung Swamp, and potentially inundate additional off-river wetlands in the lower Lachlan.

Vegetation and waterbirds

- Flows for Merrowie Creek (1 gigalitre) and Merrimajeel Creek (up to 4.5 gigalitres) will support floodplain, creek and wetland vegetation along with the aquatic food web. The flows will provide refuge foraging habitat for waterbirds. Flows in Merrimajeel Creek will reach the nationally significant Murrumbidgil Swamp, which is still recovering from the Millennium Drought and at risk of losing ecological character (unique mound–channel wetland type).
- Flows to mid-Lachlan migratory waterbird habitats (up to 2.5 gigalitres) in spring and early autumn will provide foraging resources for shorebirds before they migrate to northern hemisphere. Extended wetland inundation at known frog habitat will support completion of breeding.
- Flows to Murrin Bridge wetland (0.2 gigalitres) are planned to support cultural wetland rehabilitation and practices.

Native Fish

- Flows (up to 15 gigalitres) to maintain critical ecosystem functions and fish in healthy conditions. Flows will target water quality for water-dependent plants and animals, primarily native fish, and provide habitat for critical populations of threatened species. Pulses may be delivered to flush remnant pools if the river ceases to flow due to emergency drought management measures.

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