



Australian Government



MURRAY-DARLING  
BASIN AUTHORITY

## Summary:

# River Murray Annual Operating Outlook for 2019–20

Each year the Murray-Darling Basin Authority (MDBA) releases an annual operating outlook. It explains how the MDBA may operate the River Murray system across a range of possible climatic and rainfall scenarios.

River operators respond to conditions on a daily basis. Competing needs are balanced to ensure the efficient delivery of water for state water entitlements and the environment. The annual operating outlook forms part of the MDBA's river operations planning. It is one of the tools used to help identify situations and system pressures that may occur. The outlook helps prepare for situations such as overbank transfers or using water from the inter valley trade accounts.

Operational strategies are constantly adapted based on emerging conditions and issues. This outlook was prepared working with the Australian Government and the New South Wales, South Australian and Victorian state governments. It will be updated in October 2019 to reflect new information, seasonal conditions, and changes to the system conditions and assumptions—this is a consultative process.

## Key highlights as at August 2019

### Water in storages

- Last water year was very dry, inflows were the eighth lowest on record. There is a high chance, due to the dry catchments and the climate outlook that **low inflows will continue** into 2019–20.
- Spring is when storages are often topped up with natural inflows. However, the Bureau of Meteorology's outlook suggests above median **rainfall is unlikely** over the next three months.
- The outlook also suggests that temperatures are likely to be warmer over this period.
- **Water in storages is lower than this time last year.** For current storage levels check the MDBA's [water in storages webpage](#).
- The system has been managed so **most of the water is in Dartmouth Dam**, this reduces evaporative losses.
- Under the drier scenarios, **releases from Hume Dam** will be used to meet downstream consumptive demands, at rates lower than last year.
- If conditions remain dry and state water use is as planned, there will be **low storage levels** at the end of this year.
- Similar to last year, the system will be managed assuming no access to water from Menindee Lakes.

### Delivering water at the right place and right time

- There is an increasing **variation in when and where water is needed** for both environmental outcomes and irrigation needs.
- Substantial amounts of **water for the environment will be delivered** through the system including to

the Barmah-Millewa Forest. This will happen over August and September 2019.

### Inter-Valley Trade

- The MDBA may have access to water from Murrumbidgee inter-valley trade (IVT), but this will depend on the water market.
- For the Goulburn IVT account, MDBA have assumed access will be similar to last year and the MDBA will call on water.

### Capacity risks

- A water delivery shortfall occurs when water is not able to be delivered to users when they need it. This could be because demand exceeds physical capacity, or when water demand spikes and there's not enough time to release extra water from dams to meet the demand.
- There is **no indication at this stage that a shortfall will occur in the coming year**, however, the risk remains real. The MDBA regularly reviews risks and updates operating plans.

### Conveyance and system losses

- River operators plan and account for system losses through conveyance water. Conveyance water is the volume of water needed to move or carry water orders to customers.
- Conveyance losses will vary from year to year and **increase with high demand, low inflows, drought and hot conditions.**

## Scenarios and assumptions for the 2019–20 outlook

Each year we look at six scenarios ranging from **extreme dry** (based on River Murray system inflows of 1 000 GL) to **wet** (inflows of about 13 400 GL).

Operational strategies are then developed based on the scenarios and a number of assumptions covering inflows, losses and demands.

It should be noted that not one specific scenario will apply given the **range of varying factors**, a complex operating environment and potential changes to assumptions.

Management and operating strategies include:

- management of water in storages and water transfers
- manipulation of weir levels
- using water from tributaries and from inter-valley trade and Menindee Lakes (if available)
- monitoring demand and weather forecasts to continually adjust operations.

## The River Murray system is complex with many variables:



One of the most variable climates in the world with **severe droughts**, summer **floods** and **extreme** temperatures.



There are **changing patterns of demand** for water use for consumption, irrigation and the environment



Inflows can **range between 1,000GL to 40,000 GL** with dependence on releases from the Snowy Mountains scheme and regulated and unregulated tributaries.



Water trade drives water to the highest value and the **timing and location of demand is variable**.



**Delivering water takes time**, from days to weeks, it takes 22 days for water from Hume Dam to reach Lake Victoria



There are **no controlled storages downstream of Lake Victoria**. And increased variation in weir pool levels to achieve outcomes for the environment.



### Management of the River Murray System

The Murray–Darling Basin Authority operates the River Murray on behalf of the New South Wales, Victorian and South Australian governments. State governments are responsible for individual entitlements and allocations.

The Murray–Darling Basin



### For more information visit

[mdba.gov.au/river-murray-system/river-murray-operations](http://mdba.gov.au/river-murray-system/river-murray-operations)

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