Australian Government

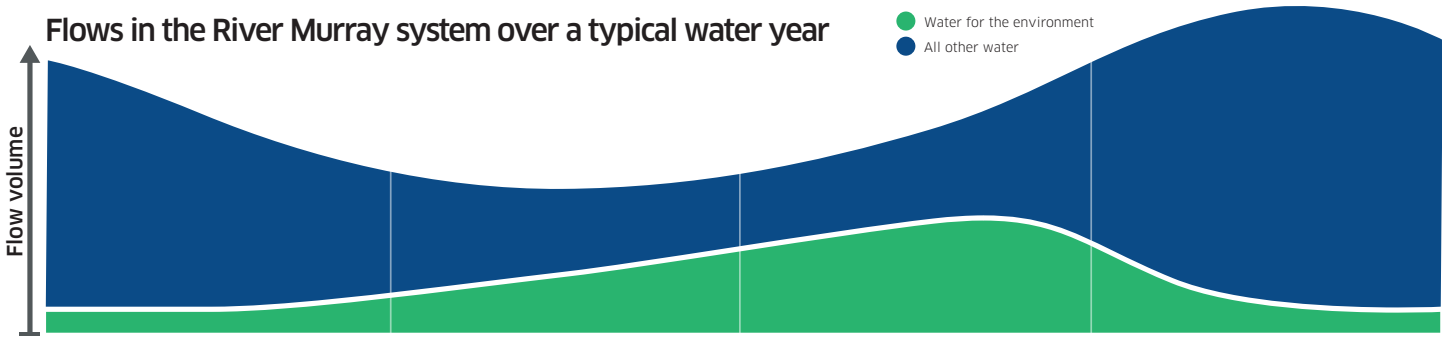
MURRAY–DARLING BASIN AUTHORITY

# Flows in the River Murray System – August 2020

Flows in the River Murray System vary widely depending on a range of factors, including rainfall, inflows, evaporation, and demand for water for human use.

At any given time, water flowing through the river is destined for various uses, including irrigation, industry, communities, the environment, and meeting South Australia's flow entitlement. The exact mix of these flow components is determined by demand and water availability, amongst other factors.

The graphic below is indicative of how water flow is managed throughout the seasons across a typical year.




### Autumn
- River operations focus on managing dam storage levels and river system for the following water year
- River flows are relatively stable
- Medium demand for consumptive use (irrigation, industry, communities)
- Water for the environment flows are low
- Dam storage levels decline

### Winter
- River operations focus on capturing inflows from tributaries and meeting early season demand*
- River flows are highly variable
- Lowest demand for consumptive water (irrigation, industry, communities)
- Water for the environment flows increase
- Dam storage levels increase

### Spring
- River operations aim to capture water inflows and manage dam storage levels for summer demand*
- Increasing demand for consumptive water (irrigation, industry, communities)
- River flows are highly variable
- Water for the environment flows are highest
- Dam storage levels increase due to higher inflows

### Summer
- River operations focus on managing water supply to meet large system demand*
- River flows are relatively stable
- Highest demand for consumptive water (irrigation, industry, communities)
- Water for the environment flows decrease
- Dam storage levels decline

* including meeting South Australia's flow entitlement

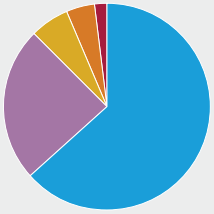
## Water for the environment

Overall, water for the environment is a small percentage of the total water used in the Murray–Darling Basin.

The volume of water for the environment used over the past five years increased slightly as more water became available. The average use over this period was 20.4% of the total water used in the Basin.

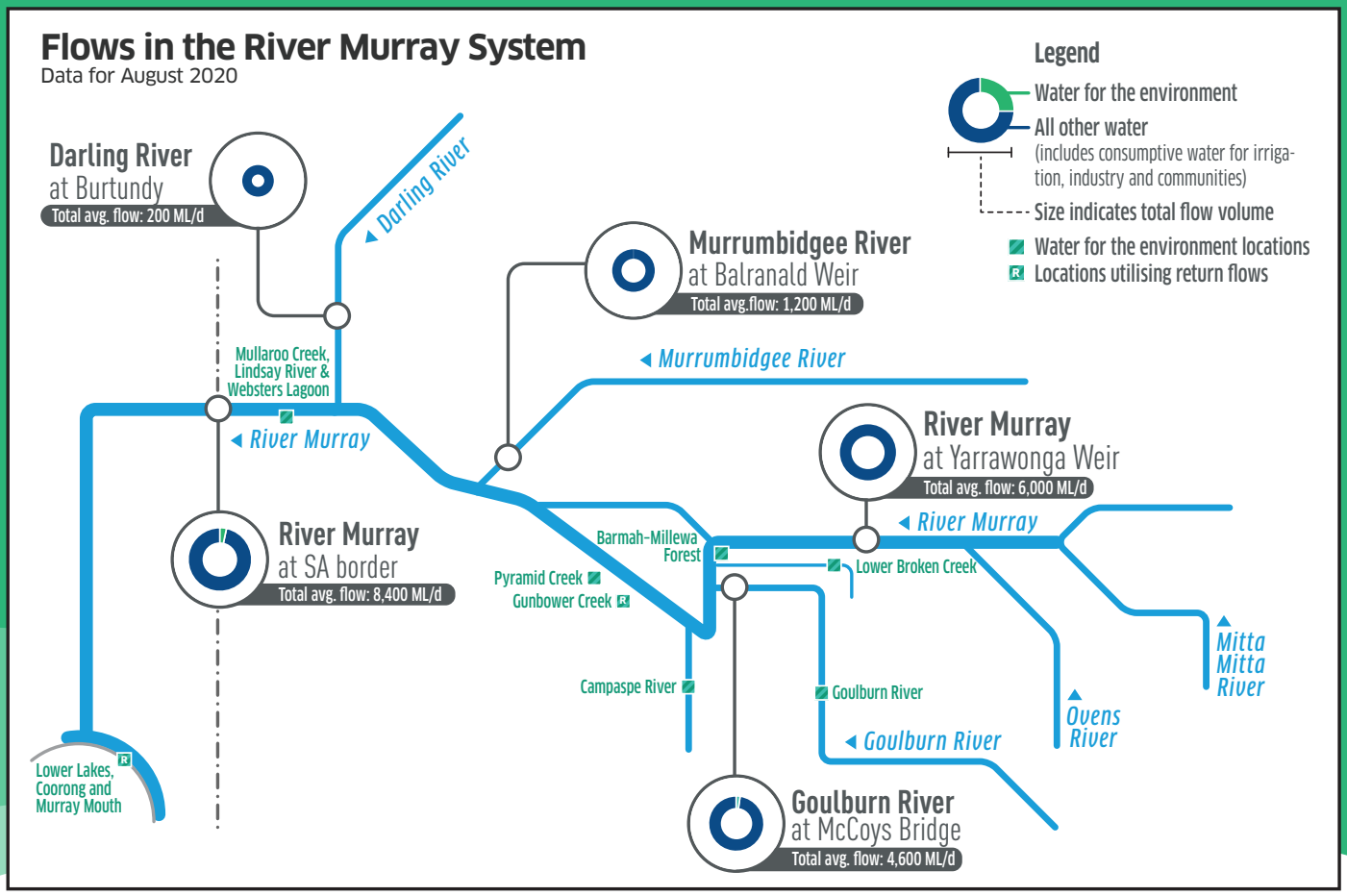
Importantly, water held for the environment uses the same entitlement framework as consumptive users. In any given year the amount of water available for delivery to key environmental sites is determined based on the same rules that apply to all other consumptive water uses.

## Who holds and manages water for the environment (based on entitlement volume at June 2018)



| Water manager | % of total |
|---|---|
| Commonwealth Environmental Water Holder | 63% |
| Jointly held | 24% |
| New South Wales | 6% |
| Victoria | 5% |
| South Australia | 2% |

Source: Southern Connected Basin Environmental Watering Committee Annual Report




*Information in the graphic above is for the month of July 2020 and may not include recent rainfall or delivery of water for the environment in the Murray system. Information in this figure is an average estimate over the past month and formal accounts from Basin state governments may vary.*

## River flow information

Unregulated flows in the River Murray System over the past month have increased the average flow to South Australia above entitlement, as rainfall occurred downstream of major storages in the Upper Murray (Hume & Dartmouth) and cannot be stored in Lake Victoria.

There have been small volumes of water for the environment delivered over the past month, with all environmental return flows coming from the Victorian tributaries.

### Intended environmental outcomes

- **Barmah-Millewa Forest –** Provide flows in forest waterways to maintain habitat for native fish and turtles, facilitate movement of native fish between creeks and the river and remove accumulated organic matter from the waterways to cycle carbon to the river.
- **Lower Broken Creek** – Protect and increase native fish populations and avoid excessive build-up of azolla fern.
- **Goulburn River downstream of Eildon** – Protect and boost populations of native fish, maintain abundant and diverse waterbugs and increase water dependent plants in the river channel and banks.
- **Campaspe River** – Provide habitat to help protect and increase populations of native fish and maintain resident platypus populations.
- **Gunbower Creek (return flows)** – Maintain breeding habitat and food resources for native fish (such as Murray cod).
- **Pyramid Creek** – Maintain connectivity between pools and provide habitat for fish and waterbugs.
- **Mullaroo Creek, Lindsay River and Websters Lagoon** – Provide flows for fish to swim, feed and breed, increase abundance of wetland plants and provide feeding and breeding habitat for waterbirds.
- **Lower Lakes, Coorong and Murray Mouth (return flows)** – Winter barrage releases for fish to migrate and improve water quality and diversity of habitat in the Coorong and manage lake levels.

## More information on river flows and water for the environment

**Live River Data**
riverdata.mdba.gov.au

**River Murray Weekly Report**
mdba.gov.au/river-information/weekly-reports

**Water sharing in the River Murray**
www.mdba.gov.au/river-information/water-sharing

**Water use in catchments**
www.environment.gov.au/water/cewo/catchment

**FLOW Monitoring, Evaluation and Research**
flow-mer.org.au

**Delivering water for the environment**
mdba.gov.au/managing-water/water-for-environment/water-over-time