Flows to the lower Murray–Darling Basin

A sustainable Basin needs rivers and waterways that are healthy from the top of the system, to the bottom – the lower end of the River Murray in South Australia.

The Murray–Darling Basin Plan aims to improve the health of the entire Basin by helping to ensure water flows along the entire length of the river system.

Salinity management is also one of the most significant challenges in the Murray–Darling Basin. If it is not managed effectively, salinity has serious implications for water quality, plant growth, biodiversity, land productivity and the supply of water for critical human needs.

The only natural way that salt can leave the Basin is by water flowing through the river system and out to the sea through the Murray Mouth.

A series of barrages separate the River Murray from the sea and are designed to stop estuarine salt water flowing back into the Lower Lakes (Lake Alexandrina and Lake Albert).

By the time water reaches South Australia (SA) it has usually provided multiple benefits to the environment, communities and agriculture in the other Basin states.

Located at the bottom of the Basin, SA is often the first place to experience indicators that the system, as a whole, is under stress.

Key facts

A healthy river system with flows reaching the lower Basin ensures connectivity for fish, supports vegetation and wildlife, and provides water for irrigation and human consumption.

Water for South Australia supports the environment, as well as agriculture—with more than 2400 SA-based agriculture businesses, and approximately 1150 irrigation businesses.

It also provides water for human consumption for 1.2 million people, including up to 90% of the drinking water for the city of Adelaide and regional centres in a dry year.

The lower Basin has three wetlands of international importance under the UN Ramsar Convention and 11 nationally-recognised wetlands and floodplains.

Water flows to SA also supports the recovery of the Coorong, a Ramsar listed wetland and natural feature of great significance to First Nations people.

Salinity can be a major issue for agriculture, communities and the environment—sending water through SA and out to sea contributes to whole-of-Basin health.

The SA Lower Lakes – Lake Alexandrina and Lake Albert together hold approximately 2000 GL – or the equivalent of four Sydney harbours.
Water allocations and the role of the MDBA

Under the Murray–Darling Basin Agreement (the Agreement), a key role of the Murray–Darling Basin Authority (MDBA) is:

- determining how much of the total water available in the River Murray system belongs to each state; and
- sharing the waters of the River Murray between Victoria, New South Wales (NSW) and SA. In doing this, the MDBA strictly follows the rules of the Agreement.

In terms of SA’s water allocation, the Agreement sets out that:

- Each year, SA is entitled to receive up to a maximum of 1850 GL, depending on the water availability.
- This does not include water that would flow to SA during floods or as a result of trades and environmental watering actions.
- **NSW and Victoria provide equally for SA’s share.**

Before water is made available for states to then allocate to their water entitlement holders, there are systems demands that must be met:

- **conveyance water** requirements—the water that is needed to keep the system running and includes water that is lost to evaporation and to seepage; and
- **reserves** held for the following year.

For SA, the 1850 GL per year entitlement includes:

- a set 696 GL a year for **conveyance losses** and dilution, and
- up to 860 GL for **consumptive entitlement**, leaving approximately 300 GL in the river for other purposes such as flows into the lower lakes and deferral for critical human water needs.

The history of SA’s annual entitlement of 1850 GL is set out in the Agreement and dates back to 1970, when the state negotiated a fixed allocation, opting for certainty rather than potentially higher flows in wet years.

In return, SA supported the then proposed Dartmouth Dam to be built in Victoria, and abandoned its planned dam at Chowilla near the SA-NSW-Victoria border.

Allocations to SA’s water entitlement holders

Once the system needs have been met, the MDBA informs each state how much water they have available to allocate to their water entitlement holders.

Each state has different methods for allocations to entitlement holders. When SA receives a total of 1496 GL, SA entitlement holders will receive 100% allocation.

When less water is available, licence holders receive a smaller allocation.

The Murray–Darling Basin

Connect with us.
The MDBA has offices in Adelaide, Albury–Wodonga, Canberra, Goondiwindi, Toowoomba, and regional engagement officers around the Basin.

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