



Fact Sheet No.1: WHY THE BARRAGES ARE NEEDED

(Prepared by: River Lakes & Coorong Action Group)

Version. 1, October 2026

The River Murray is controlled by a series of locks with a relatively stable water level between each lock all the way downstream to the barrages near the Murray Mouth (see Figures.1 & 2).

The locks and associated weirs were built in the 1930's to facilitate river transport and the barrages were completed in 1940 to stop saltwater intrusion into Lakes Alexandrina and Albert as flow into the lakes reduced due to extraction of water for irrigation in the Murray-Darling Basin.

The final 275 km section of the River from Lock 1 at Blanchetown to the barrages has a standing water level of around 0.75m AHD. It is from this section of the River that drinking water is drawn to supply most of South Australia's population including Adelaide, York Peninsula and the Southeast.

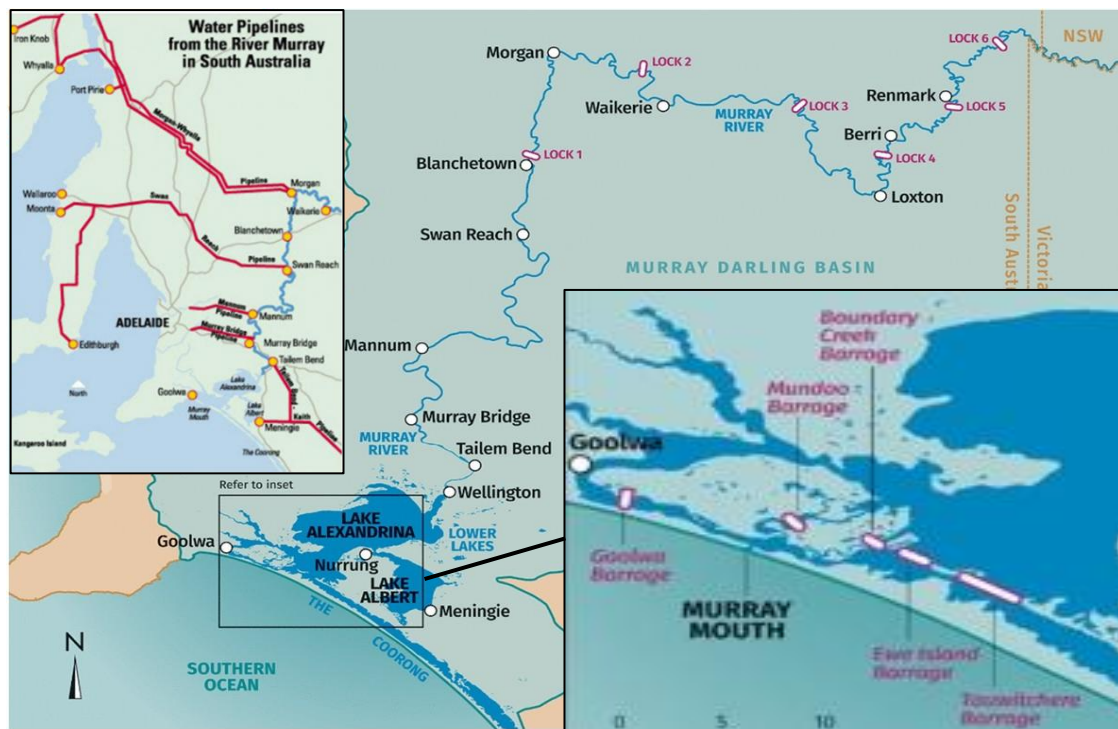


Figure 1 – Map of River Murray in SA with Details of Water Supply Pipelines and Lock Locations.

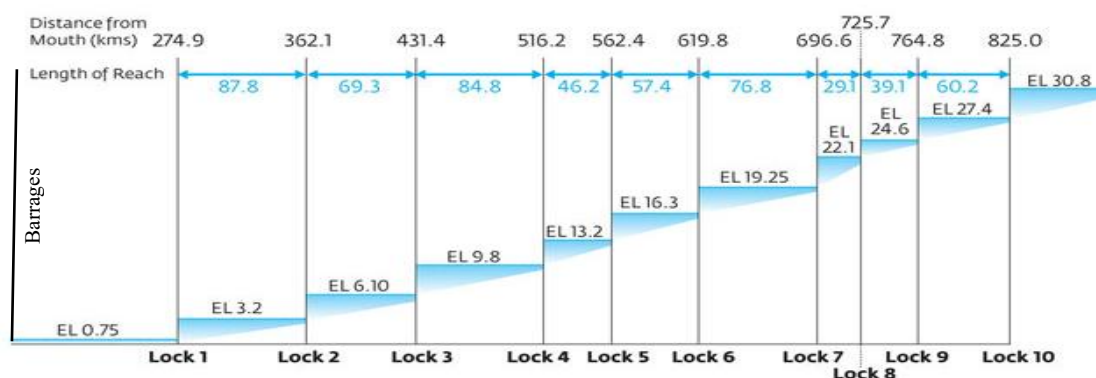


Figure 2 – Pool Levels, Reach Lengths and Distance of Locks from the Murray Mouth

The make-up of total flows at the SA border including environmental flows and unregulated flows in recent years is shown in Figure.3, while flows at the SA Border and through the barrages in 2024/25 are shown in more detail in Figure. 4.

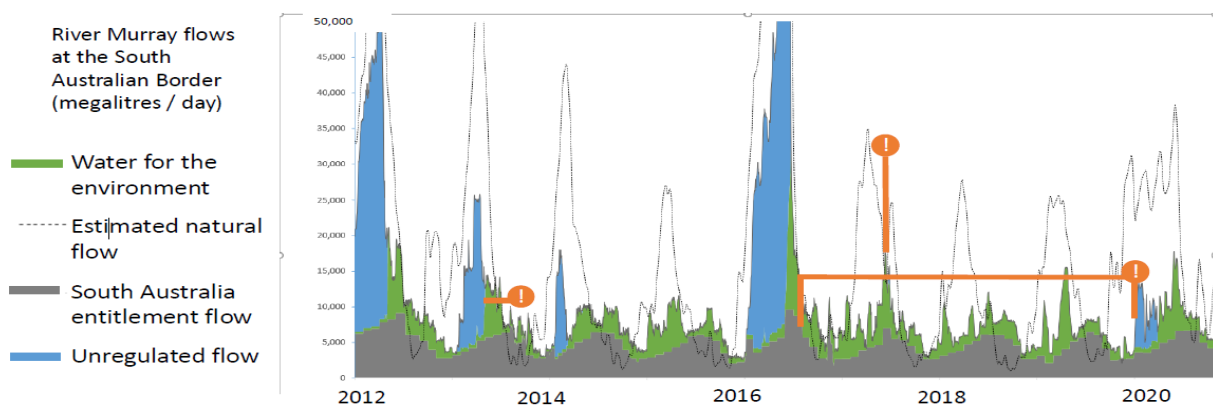


Figure. 3 – Contribution of Environmental Water at the SA Border (MDBA)

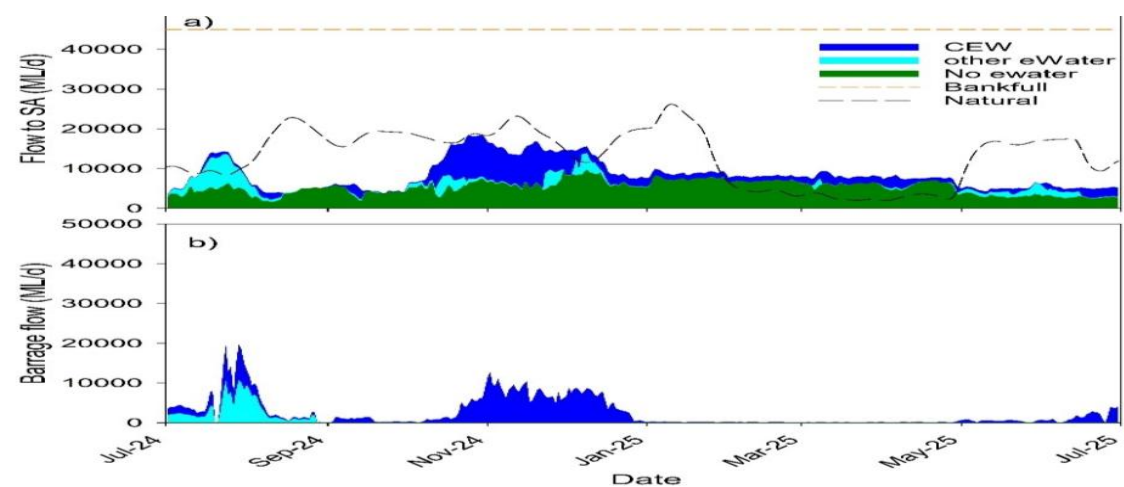


Figure 4 – Total Flows at SA Border and through Barrages in 2024/25

During recent dry cycles (e.g. 2018–2020 and 2024–2026), Held Environmental Water (HEW) and environmental return flows from upstream actions constituted the only water flowing through the barrages. Without this water, Lakes Alexandrina and Albert would have fallen below the critical 0.4 m AHD threshold and may have even fallen below 0.0 m AHD, and caused catastrophic soil acidification and threatened the drinking water supplies for Adelaide, York Peninsula and the Southeast.

If the barrages were removed, in these dry periods to fill the lakes, saltwater would have flowed right back to Lock 1 at Blanchetown contaminating the drinking water supplies.

While removing the barrages would eliminate the need for 800–1,000 GL/year of freshwater to compensate for evaporation losses from Lakes Alexandrina and Albert, the flow into the lakes is mostly environmental return water which if not lost to evaporation will flow into the ocean without saving any water that could be extracted upstream.

These environmental flows have proven to be extremely valuable as an average of 2,000 GL/y (over every 3 years) is required to be discharged through the barrages to flush salt and other pollutants from the Murray-Darling Basin to avoid unacceptable water quality throughout the Basin.

Removing the barrages would also expand the tidal prism from ~1,400 ML to 16,000 ML, dropping the outgoing-to-incoming tide ratio from 5.7 down to 1.5. This would cause incoming ocean tides to trap massive volumes of sand inside the mouth, accelerating its complete closure.

The entire CLLMM region is a Ramsar Wetland of International significance. Allowing the freshwater ecosystem of the lakes to collapse by removing the barrages would not only be an environmental disaster but would also violate Australia's international conservation obligations.