

Advisory Statement

17 February 2020



River Murray Water Availability Early Advice

The purpose of this statement is to provide early advice on the conditions leading into the 2020-21 water year. Information on South Australia's projected opening minimum water allocation will be provided on 15 April 2020.

Key Facts

- Catchments remain relatively dry and a long period of above average rainfall will be required to break the current cycle of low inflows.
- Given the current low volume of water in storage combined with the prospect of continuing low inflows, it is prudent to plan for low water availability for the beginning of the 2020-21 water year.
- South Australia has secured its Critical Human Water Needs for 2020-21.
- Whilst the seasonal climate outlook is neutral, water users are reminded to continue to make early plans for a challenging year ahead. For further information on the outlooks visit <http://www.bom.gov.au/climate/ahead/outlooks/>

River Murray System Storages

The River Murray Storages under the control of the Murray-Darling Basin Authority (MDBA), currently Hume and Dartmouth Reservoirs and Lake Victoria, have progressively declined since 2016 when the last upper River Murray flood event occurred. At mid-February 2020, the active storage volume was 2,490 gigalitres (GL), compared to the long-term average for the end of February of 5,300 GL and 3,630 GL at the same time last year (**Figure 1**). The storages are currently at 27% capacity and will decline further should demands for water remain relatively high and inflows remain low.

The end of year storage volumes will be determined by future rainfall, inflows, water use for diversions and the environment, meeting conveyance requirements and carryover volumes from 2019-20 into the 2020-21 water year. Due to the high degree of uncertainty with a number of these variables, it is not currently possible to confidently predict irrigation allocations in South Australia for 2020-21. A possible outcome is that storage volumes under a dry scenario (low rainfall and inflows) will result in end of year storage volumes declining to less than 2,000 GL. This has implications for the state's water availability at the start of the 2020-21 water year and as a result, water users should plan for low water availability.

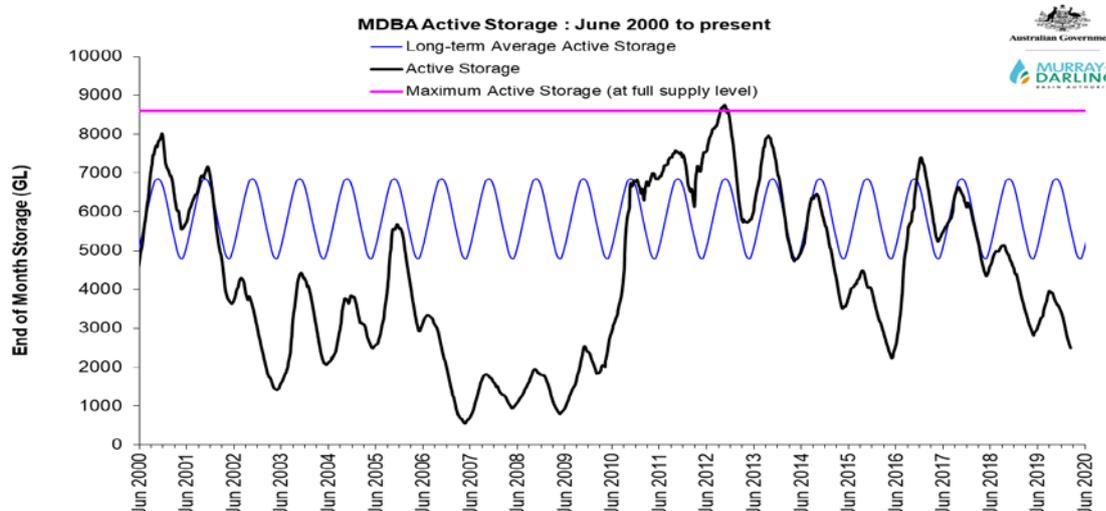


Figure 1 Active Storage Volume (Source: MDBA)

River Murray System Inflows

River Murray System inflows in 2019-20 (June to end January) were approximately 2,535 GL compared to the long-term average of 7,995 GL (i.e. 31% of the long-term average for the same period). The inflows over the past three months continued to decline in response to both low rainfall and above average temperatures and were at a level expected to be exceeded 95 years in 100. In January 2020 the inflow was approximately 60 GL and close to the record low inflow of 53 GL in January 2007 during the Millennium Drought.

Figure 2 shows the River Murray System monthly inflows. The graph indicates that inflows are currently extremely low and unless there is a substantial change to rainfall and inflow conditions, then the trend of low inflows is likely to continue impacting on storage volumes and water availability for 2020-21.

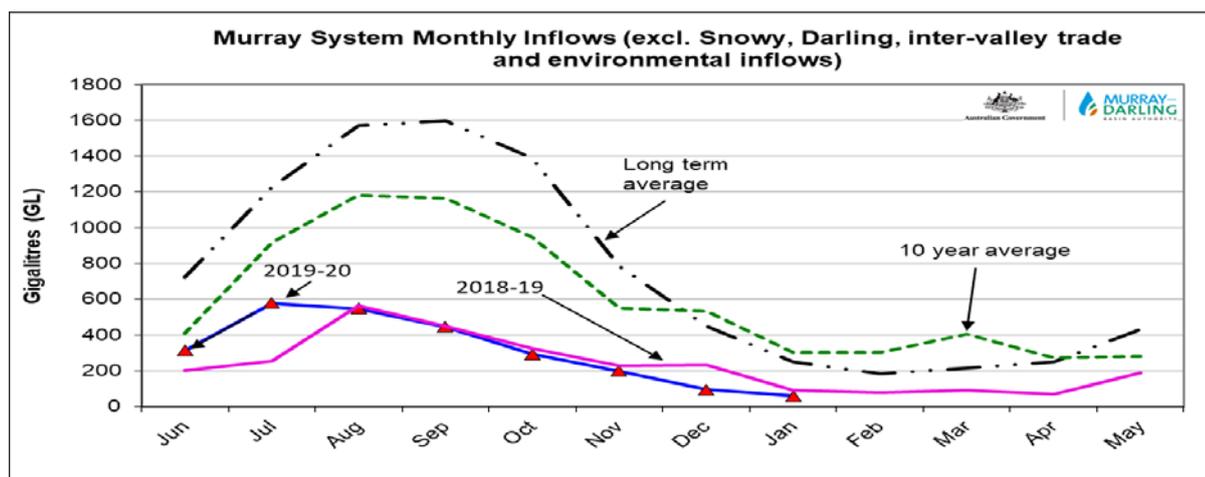


Figure 2: River Murray System Inflows (Source: MDBA)

To view the MDBA storage volumes and system inflows visit <https://riverdata.mdba.gov.au/system-view>

Recent Rainfall Impacts

Rainfall in recent weeks has been highly variable with the heaviest falls being outside of the Murray-Darling Basin. Rainfall in Queensland and Northern New South Wales will help to improve inflows in some valleys alleviating some of the impacts of the prolonged drought. While this is extremely welcome news for regional communities, it is not expected to increase water availability in the River Murray System.

Climate Outlook

In early February 2020, the Bureau of Meteorology updated its rainfall and temperature outlooks for the period March to June 2020. The rainfall outlook indicates that the likelihood of a wetter or drier than average autumn is roughly equal for much of Australia, with parts of the northern Murray-Darling Basin having a slightly increased chance of being drier than average. The temperature outlook is showing a 55-70% chance of exceeding median daytime temperatures. The outlook for warmer temperatures is more apparent in the northern section of the Murray-Darling Basin.

Climate Influences

The Indian Ocean Dipole (IOD) and the El Niño–Southern Oscillation (ENSO) are neutral and are likely to remain so until at least the end of the southern autumn.

With these major climate drivers neutral, local or short-term climate drivers such as ocean temperature patterns around Australia and active or break periods of the monsoon are likely to have a greater influence on Australian rainfall and temperature pattern.

Next Steps

Information on South Australia's opening minimum water allocation will be provided on 15 April 2020. This outlook will be a conservative forecast which is subject to change in response to conditions experienced during the remainder of 2019-20 and into 2020-21.