South Australia's River Murray Water Allocation Statement

Issued 15 May 2020

Key Messages

- Since 15 April 2020 there has been significant rainfall over the southern Murray-Darling Basin, which has resulted in improved water availability.
- If average or better inflow conditions prevail over the next six months, then South Australian Class 3 (High Security) allocations are likely to reach 100 per cent before the start of this coming summer.
- Even under an extreme dry scenario, in which inflow conditions would be worse in only 5 per cent of years, allocations are projected to reach around 60 per cent by the end of the 2020-21 water year.
- These projections are based on historical inflow data from the Murray Darling Basin Authority and represent a significantly improved outlook, even when compared to one month ago.
- In thinking about water availability for 2020-21, irrigators are strongly encouraged to take into account the full range of probability scenarios for potential allocation improvements outlined in this statement (see Figure 1), rather than focusing solely on the projected worst case minimum.
- As of 15 May 2020, the worst case minimum allocation for 2020-21 is 8 per cent and is based on storage levels at the end of April. This is conservative and is adopted to minimise the risk of allocations going backwards. However, significant improvements across 2020-21 remain likely, as most inflows to the River Murray system historically occur between July and November.
- The projected minimum volume of water that will be delivered to SA as part of its River Murray Entitlement in the 2020-21 water year has risen to 900 gigalitres (GL). This improvement means:
    - 154 GL required to meet critical human water needs (CHWN) has been fully secured; and
    - 50 GL has been made available to increase allocations against Class 3 (High Security) and Class 8 entitlements.
- With CHWN secured for 2020-21, further improvements in water availability will go towards increasing allocations against Class 3 (High Security) and Class 8 entitlements.

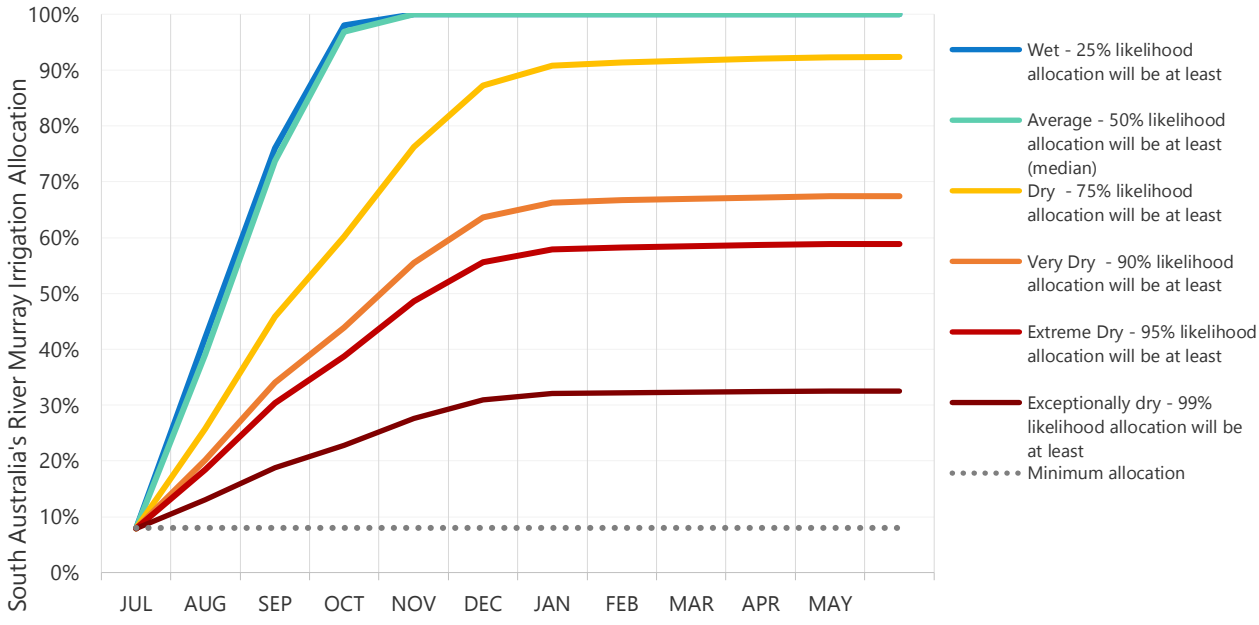
Table 1 – Projected minimum opening allocations for 2020-21 assuming 900 GL Entitlement, as at 15 May 2020.

Water Product	Projected Minimum Opening Allocation
All Purpose - Class 1 (stock and domestic)	100%
All Purpose - Class 3 (High Security)	8%
All Purpose - Class 5 (industrial and dairy)	100%
All Purpose - Class 8 (environmental land management)	8%

Water availability projections

Water availability projections help water users better understand the likelihood of future water allocations and provide a guide about future allocation increases based on River Murray system modelling and South Australia's River Murray Water Allocation Framework. By comparing allocation forecasts to the climate outlook, water users can make informed choices for planning purposes, depending on the level of risk they are comfortable with.

The reliability of the outlook will generally improve as the forecast period reduces. Forecast conditions are best estimates only and not guaranteed water availability. They should be used with caution, particularly when projecting many months ahead. The modelling sets all storages and flows in the system to current conditions and uses historical inflow and climate conditions over the last 30 years to create unique inflow sequences. It also assumes a worst case actual opening allocation (8 percent for Class 3 (High Security) and Class 8). The range of water availability conditions included in the table and graph (see Figure 1 and Table 2) are based on historical variability in rainfall and temperature, in combination with current policy and operational settings.



* Based on the volume of water held in River Murray Storages at end April 2020

This data is provided for information only. Historical performance not necessarily an indicator of future outcomes. Projections are based on historical climate variability across the last 30 years. The Government of South Australia accepts no liability for any loss resulting from the use or reliance on any of this data or information.

Figure 1 - Projected water allocation scenarios under a range of water availability conditions for SA River Murray entitlements (Class 3 (High Security) and Class 8) | 15 May 2020

Table 2 - Projected water allocation scenarios under a range of water availability conditions for SA River Murray entitlements (Class 3 (High Security) and Class 8) | 15 May 2020

SA River Murray Irrigation Allocation Scenarios Class 3 (High Security) | May 2020	1 Jul 2020 Opening Allocation	1 Sep 2020	1 Nov 2020	1 Jan 2021	1 Apr 2021
	Projected Allocation as a Percentage				
Exceptionally dry - 99% likelihood allocation will be at least	8	19	28	32	32
Extreme dry conditions - 95% likelihood allocation will be at least	8	30	49	58	59
Very dry conditions - 90% likelihood allocation will be at least	8	34	55	66	67
Dry conditions - 75% likelihood allocation will be at least	8	46	76	91	92
Average conditions - 50% likelihood allocation will be at least	8	74	100	100	100
Wet conditions - 25% likelihood allocation will be at least	8	74	100	100	100

Correct as of 15 May 2020. Based on the volume of water held in Murray-Darling Basin storages at the end of April 2020.

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Definitions: Based on modelling of water availability that simulates historical variability in rainfall and temperature, in combination with current policy and operational settings:

Exceptionally dry	There is a 99% likelihood your allocation will exceed the allocation in this scenario.
Extreme dry	There is a 95% likelihood your allocation will exceed the allocation in this scenario.
Very dry	There is a 90% likelihood your allocation will exceed the allocation in this scenario.
Dry	There is a 75% likelihood your allocation will exceed the allocation in this scenario.
Average	There is a 50% likelihood your allocation will exceed the allocation in this scenario.
Wet	There is a 25% likelihood your allocation will exceed the allocation in this scenario.

Private Carryover

Private carryover will be available for eligible water users in the 2020-21 water year. This means that an individual may carryover allocation volumes that are available to them and not used by the end of the 2019-20 water year, up to 20 percent of the volume of their Class 3 (High Security) entitlement.

The existing 100 percent limit on the combined allocation and carryover volumes granted under Class 3 (High Security) entitlements will continue to apply in 2020-21. However, under a rule change that applies from 1 July 2020, allocation volumes that would otherwise be granted above this 100 percent limit will be 'rolled over' into 2021-22 if carryover is triggered for that year (i.e. if the minimum opening allocation announced in April 2021 is 50 percent or less). For example, if you have carried over 20 percent of your allocation, any improvements above 80 percent will go into your rollover account and will only be available if carryover is triggered for 2021-22.

Note: current projections indicate that there is just over an 80 percent likelihood that Class 3 (High Security) allocations will reach at least 80 percent by the end of 2020-21.

Further information on the new carryover policy is available here.

Water Allocation Framework

The Water Allocation Plan for the South Australian River Murray Prescribed Watercourse details how water is allocated. Water is made available to one or more Consumptive Pools (CP) and then shared in accordance with the principles in the Water Allocation Plan. Figure 2 (below) illustrates how water is prioritised and provides a guide as to how allocations will change with improvements in South Australia's River Murray Entitlement.

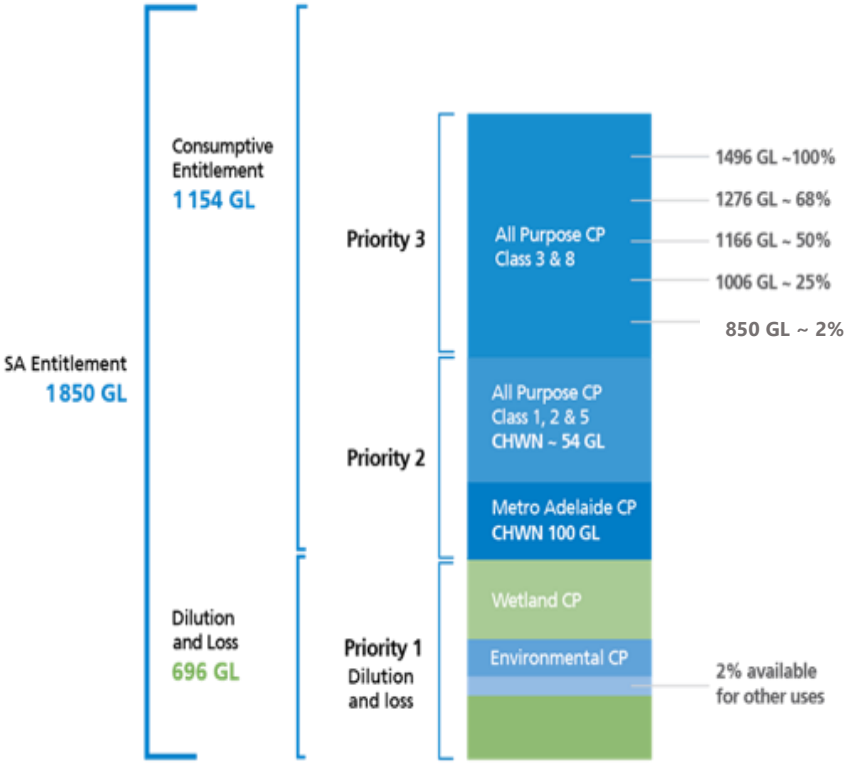


Figure 2: 2019 River Murray Water Allocation Plan's allocation framework

Water held in storage

At the end of April 2020 there was 2,824 GL (30 percent of capacity) held in Murray-Darling Basin Authority (MDBA) controlled storages. This is 3 percent less than the same time last year, and significantly less than the long-term average held in storage at the end of April of 5,424 GL (59 percent of total capacity). 101.4 GL of water is currently held in storage for South Australian private carryover.

Table 3 - Water held in Murray-Darling Basin storages at the end of April 2020

Storage	Full Supply Volume	Current Volume		SA Private Carryover Volume
	GL	GL	%	GL
Dartmouth Dam	3,856	1,827	47	101.4
Hume Dam	3,005	400	13	0
Lake Victoria	677	275	41	0
Menindee Lakes	1,731	322	19	-
Total	9,269	2,824	30	101.4

For more information on Murray-Darling Basin storages visit the MDBA website.

Climate outlook

The Bureau of Meteorology's mid-range rainfall outlook across the Murray-Darling Basin shows at least an 80% chance that much of southern and inland eastern Australia will be wetter than average for the three months from June to August (Figure 3). While recent rainfall over parts of eastern Australia has eased the dry conditions in many areas, long-term rainfall deficiencies remain in many regions. Several months of above average rainfall may be required to increase streamflows and replenish water storages. June to August days are likely to be cooler than average across much of the Murray-Darling Basin (Figure 4).

A warmer than average eastern Indian Ocean is increasing the likelihood of northwest cloudbands interacting with rain-bearing fronts and troughs as they sweep across the country during late autumn and into early winter. While the Indian Ocean Dipole (IOD) is currently neutral, the outlook suggests a negative IOD could develop from mid-winter. Caution should be exercised when using IOD forecasts issued during autumn, as they are less accurate than forecasts made at other times of the year. However, it should be noted all other international models surveyed by the Bureau also indicate a negative IOD is likely to form during 2020. Negative IOD events typically increase the likelihood of above average winter-spring rainfall across southern Australia. They also increase the likelihood of cooler days in the south, and warmer days in the north, a pattern which is largely reflected in the winter maximum temperature outlook.

The El Niño–Southern Oscillation (ENSO) is most likely to remain neutral over winter, though cooling of the tropical Pacific Ocean is likely, with some chance that ocean temperatures could reach La Niña levels late in winter or early spring. La Nina is typically associated with an increased likelihood of above average winter-spring rainfall across southern and eastern Australia.

For more information on seasonal rainfall and temperature outlooks please visit the BoM website.

Figure 3 - Bureau of Meteorology seasonal outlook. Rainfall, June-August 2020

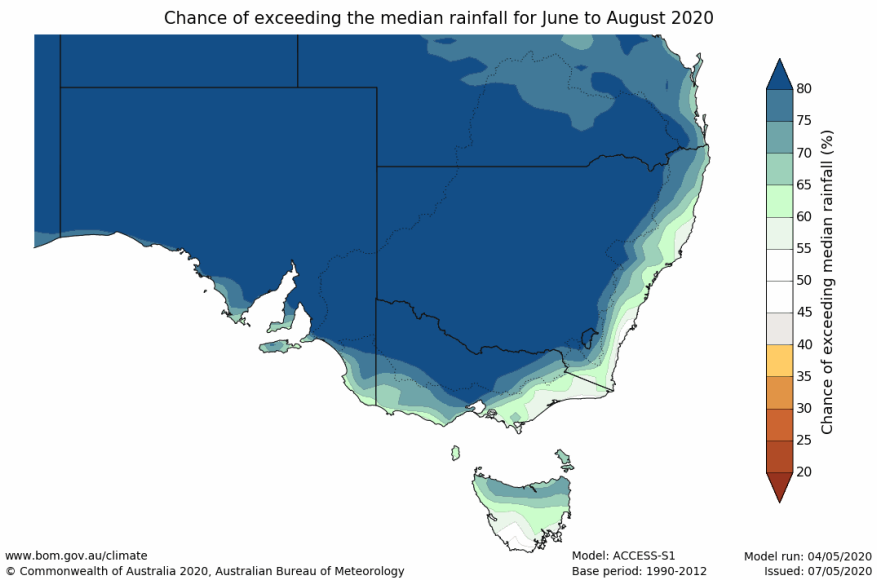
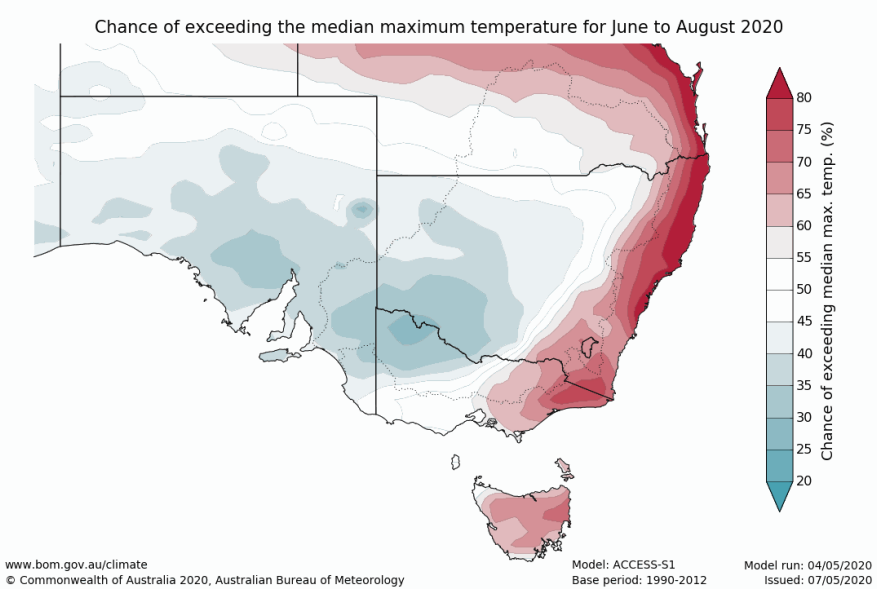


Figure 4 - Bureau of Meteorology seasonal outlook. Temperature, June-August 2020



Next announcement

The next announcement will be provided on **Monday 15 June** 2020. This announcement will detail the actual opening allocation for 01 July 2020.

Up until 1 July 2020, the Department for Environment and Water (DEW) will provide updated water availability projections monthly. Thereafter, updated water allocation information will be provided every two weeks while water allocations are less than 100 percent.

Further Information

For more information on South Australia's water allocations or to sign up to receive the weekly River Murray Flow Report:

- Visit the DEW website
- Email DEW:RiverMurrayOps@sa.gov.au

To speak with someone about your water allocation or account:

- Drop into the water licensing office at 2 Wade Street, Berri SA
- Call the water licensing office on (08) 8595 2053
- Email water licensing on DEW.WaterLicensingBerri@sa.gov.au