South Australia's River Murray Water Allocation Statement

Issued 15 April 2020

South Australia's River Murray Entitlement

The projected minimum amount of water that will be delivered to South Australia as part of its Entitlement in the 2020-21 water year is 696 gigalitres (GL). This is a conservative estimate that assumes:

- the remainder of the current 2019-20 water year will be very dry¹; and
- that inflows into the River Murray System in the 2020-21 water year will be consistent with those experienced in exceptionally dry years².

Projected Minimum Opening Irrigation Allocation

The projected **minimum**, or worst case, opening Class 3 (High Security) allocation for the 2020-21 water year is **2 percent**. Projected minimum opening allocations from South Australia's Entitlement for other classes of water are included in Table 1. Allocation decisions are made based on South Australia's water allocation framework detailed in the Water Allocation Plan for the South Australian River Murray Prescribed Watercourse.

The first water available to South Australia is 696 GL for dilution and loss purposes. This is part of the state's River Murray system conveyance requirements. This is needed to 'run the river' from the South Australian border to Wellington and ensure that salinity levels do not exceed a minimum standard for drinking water. Under extremely dry conditions, the water for dilution and loss may be used to make an initial 2 percent allocation to Class 3 (High Security) and Class 8 entitlement holders. The second water available is for critical human water needs (CHWN). To help South Australia prepare for an extended dry period, water can be stored from the Entitlement in the major River Murray storages in one year to meet CHWN and private carryover in a future year. At the end of March 2020, approximately 238 GL is available in storage to meet South Australia's CHWN. In the absence of any further improvements in water availability between now and the start of the 2020-21 water year, water stored in South Australia's Storage Right may be used to underpin the delivery of CHWN at the start of the 2020-21 water year.

Water Product	Projected Minimum Opening Allocation
All Purpose - Class 1 (stock and domestic)	100%
All Purpose - Class 3 (High Security)	2%
All Purpose - Class 5 (industrial and dairy)	100%
All Purpose - Class 8 (environmental land management)	2%

¹ Historically, Murray-Darling Basin inflows for the remainder of the year exceed this value in 90 percent of years.

² Historically, Murray-Darling Basin inflows exceed this value in 99 percent of years.



Water availability projections

Water availability projections are a tool to help water users better understand the likelihood of future water allocations. The water availability projections provide a guide about future water 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 business 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 (2 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.



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 April 2020



Government of South Australia
Department for Environment
and Water

www.environment.sa.gov.au/river-murray

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

SA River Murray Irrigation Allocation Scenarios Class 3 (High Security) April 2020	1 Jul 2020 Opening Allocation	1 Sep 2020	1 Nov 2020	1 Jan 2021	1 Apr 2021
		Projected Al	location as a P	ercentage	
Exceptionally dry - 99% likelihood allocation will be at least	2	2	2	2	2
Extreme dry conditions - 95% likelihood allocation will be at least		2	2	2	2
Very dry conditions - 90% likelihood allocation will be at least		2	2	2	2
Dry conditions - 75% likelihood allocation will be at least		7	36	41	42
Average conditions - 50% likelihood allocation will be at least		38	84	90	92
Wet conditions - 25% likelihood allocation will be at least		77	100	100	100

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

DISCLAIMER: This data is provided for information only. Historical performance is 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 of or reliance on any of this data or information.

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 per cent 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 per cent limit in 2020-21 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 per cent 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 the minimum opening allocation for the 2021-22 water year is 50 percent or less.





Note: current projections indicate that there is just over a 60 per cent likelihood that Class 3 (High Security) allocations will reach at least 80 per cent by the end of 2020-21.

Further information on the new carryover policy is available here.

Water Allocation Framework



The <u>Water Allocation Plan for the South Australian River Murray Prescribed Watercourse</u> 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.



Water held in storage

There was 2,632 GL (28 percent of capacity) held in Murray-Darling Basin Authority (MDBA) controlled storages at the end of March 2020. This is 6 percent less than the same time last year, and significantly less than the long-term average volume held in storage at the end of March of 5,505 GL (59 percent of total capacity). 101.4 GL of water is currently held in storage for South Australian private carryover.

Storage	Full Supply Volume	Current Volume		SA Private Carryover Volume
	GL	GL	%	GL
Dartmouth Dam	3,856	1,800	47	101.4
Hume Dam	3,005	393	13	0
Lake Victoria	677	236	35	0
Menindee Lakes	1,731	203	12	-
Total	9,269	2,632	28	101.4

rable - mater neta arrianay barang basar storages at the end of mater EoEo	Table 2 - Water held in	Murray-Darlina	Basin storages at the	end of March 2020
		Trainay Durting	busin storages at the	

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

Climate outlook

The Bureau of Meteorology's mid-range outlook across the Murray-Darling Basin shows a 60-80% chance that much of southern and inland eastern Australia will be wetter than average for the three months from April to June (Figure 4). 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. April to June days are likely to be cooler than average across much of the Murray-Darling Basin (Figure 5).

The El Niño–Southern Oscillation (ENSO) and the Indian Ocean Dipole (IOD) are currently neutral and are forecast to remain neutral into winter. With several of Australia's major climate drivers neutral, other climate influences are affecting the climate of Australia. The outlook indicates a stronger north to south sea surface temperature gradient in the eastern Indian Ocean. Combined with south-westerly winds over the mid-to-southern Indian Ocean, this increases the chance of wetter than average conditions across western, central and southern Australia. For more information on seasonal rainfall and temperature outlooks please visit the <u>BoM website</u>.



Chance of exceeding the median rainfall for April to June 2020

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

[©] Commonwealth of Australia 2020, Australian Bureau of Meteorology Base period: 1990-2012 issued: 02/04/2020 Figure 4 - Bureau of Meteorology seasonal outlook. Temperature, April-June 2020



Chance of exceeding the median maximum temperature for April to June 2020

Next announcement

The next announcement and updated projected minimum opening allocation for the 2020-21 water year will be provided on **Friday 15 May** 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 <u>DEW website</u>
- Email <u>DEW:RiverMurrayOps@sa.gov.au</u>

To speak with someone about your water allocation or account:

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

