



Available Water Determinations (AWD)

NSW Department of Planning, Industry and Environment – Water | Deep Singh

August 2019

How is an AWD made?

Government assumes an extremely dry outlook

- Low risk – 99%

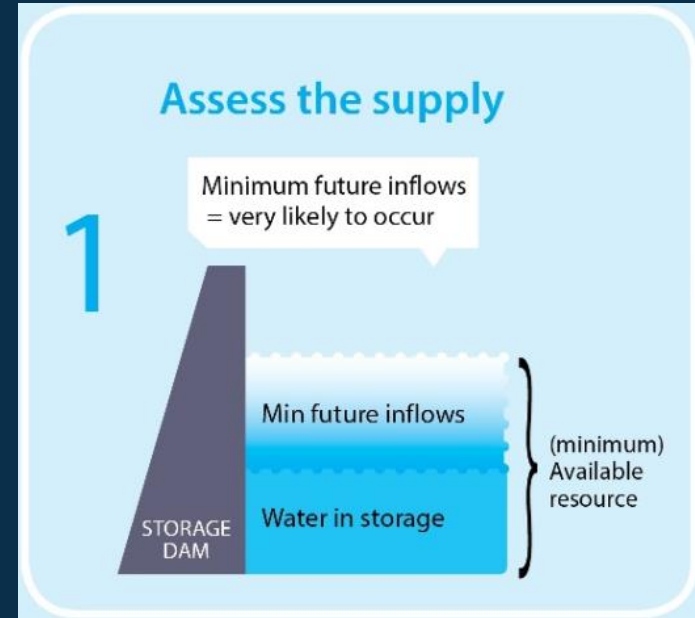
Requirements codified in Water Sharing Plan

- Priority of access to water (towns, domestic, stock, ...)
- End of system flow requirements
- Planned Environmental allowances

Annual accounting (July - June)

Step 1: Assess the supply

- Water in storage
- Inflows near certain to eventuate
- Water in transit that can be reregulated
- IVT
- Snowy



Step 2: Assess existing commitments

- Essential / Fixed Requirements
 - Existing allocation
 - Environmental Water Accounts
- System Losses
 - Evaporation
 - Transmission
 - Operational
- 2nd year reserves



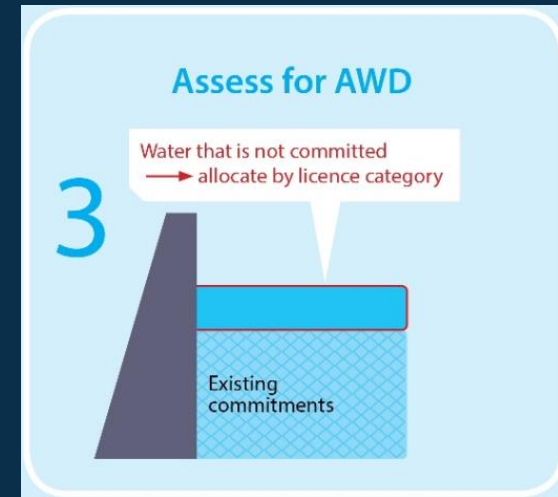
Step 3: Assess for AWD



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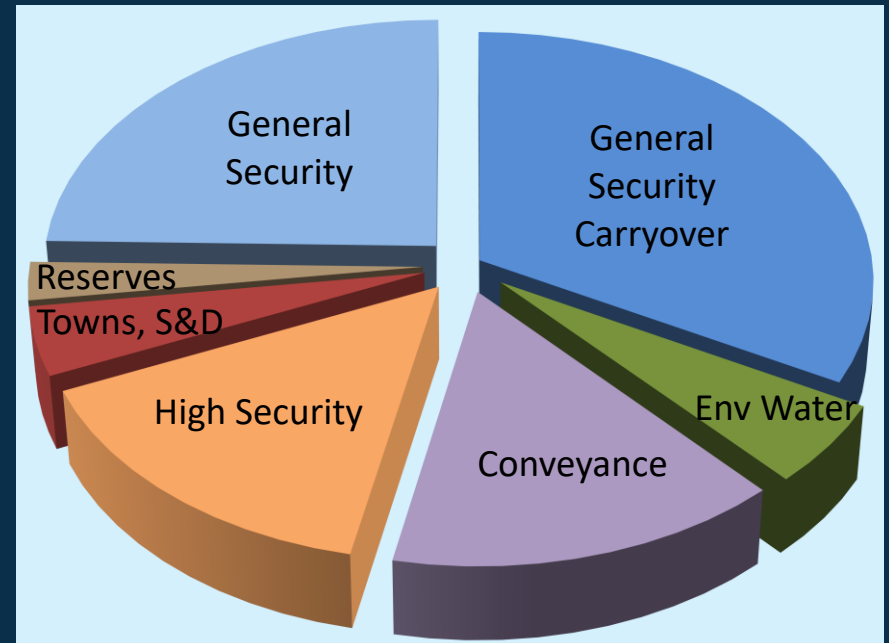
Step 4: Announce AWD

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Announce AWD

Licence categories

- Domestic and stock
- Town water supply
- High security
- Conveyance
- General security

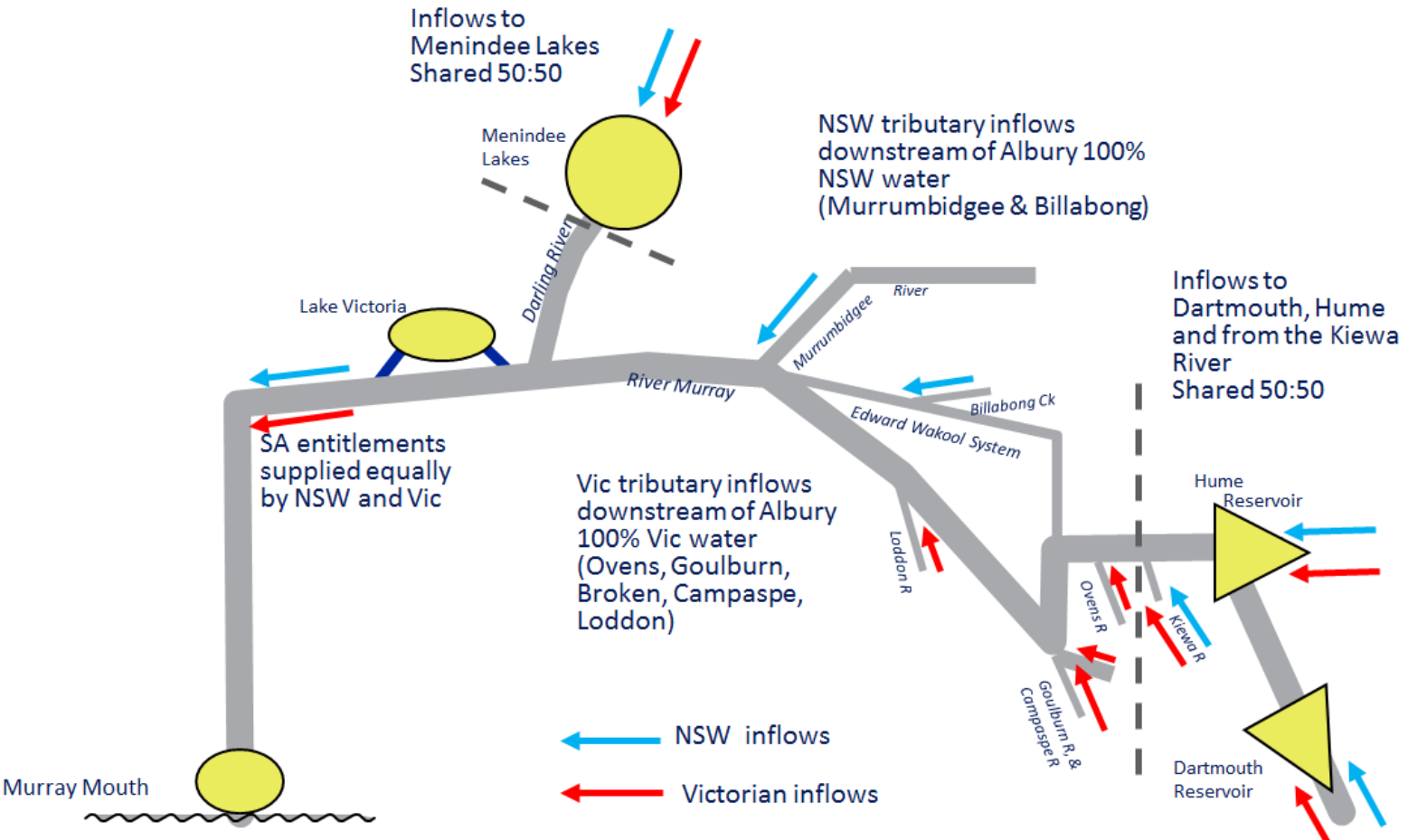


How is an AWD made?



AWDs in the NSW Murray

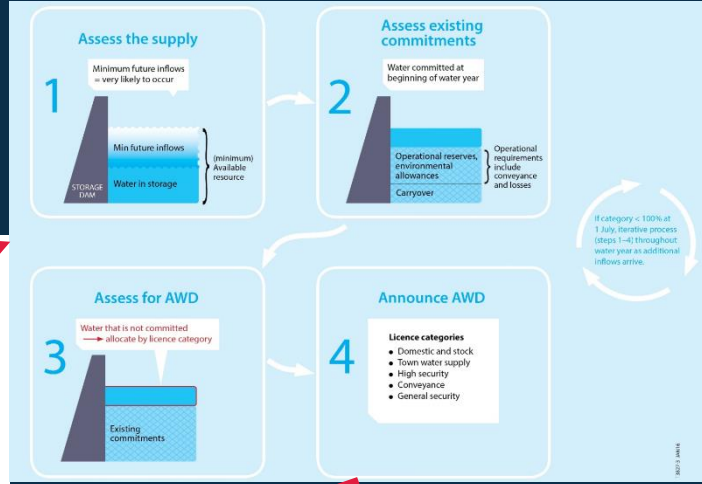
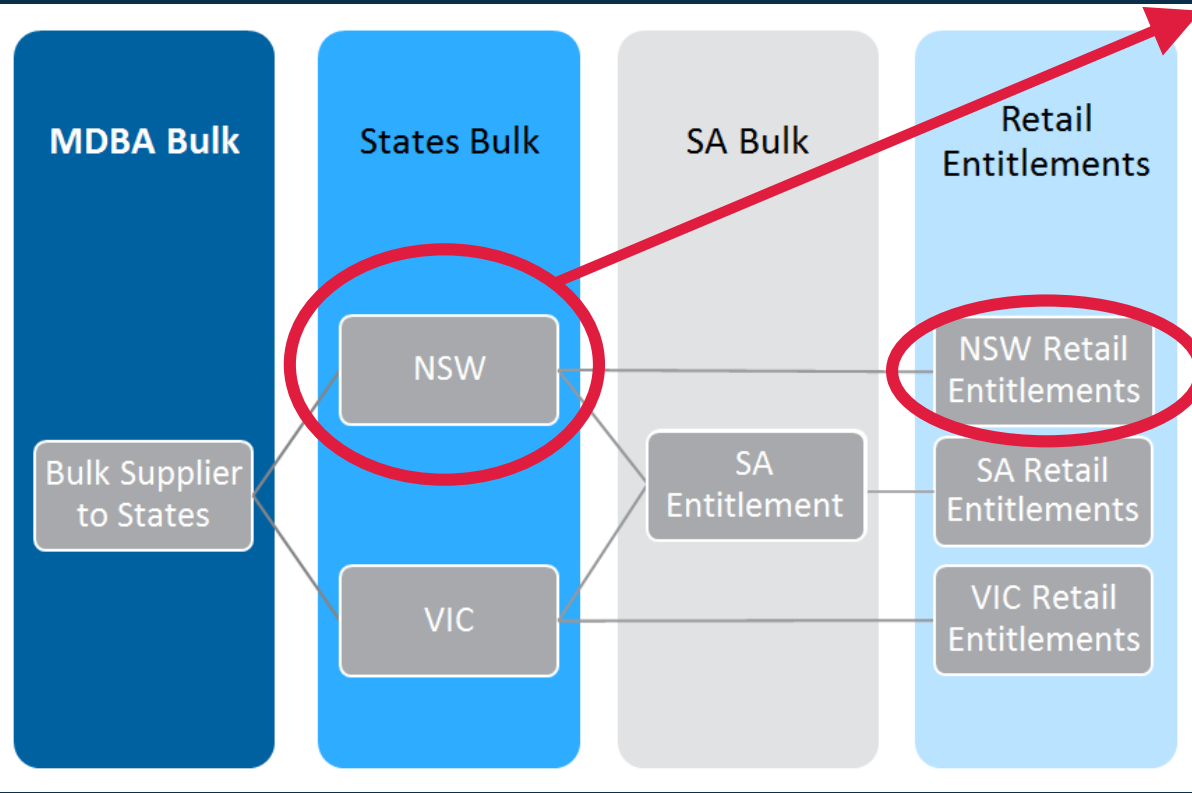
- Shared system between NSW, Victoria and SA.
- NSW and Victoria share the headwater storages and supply SA.
- Sharing arrangement governed by the Murray Darling Basin Agreement.



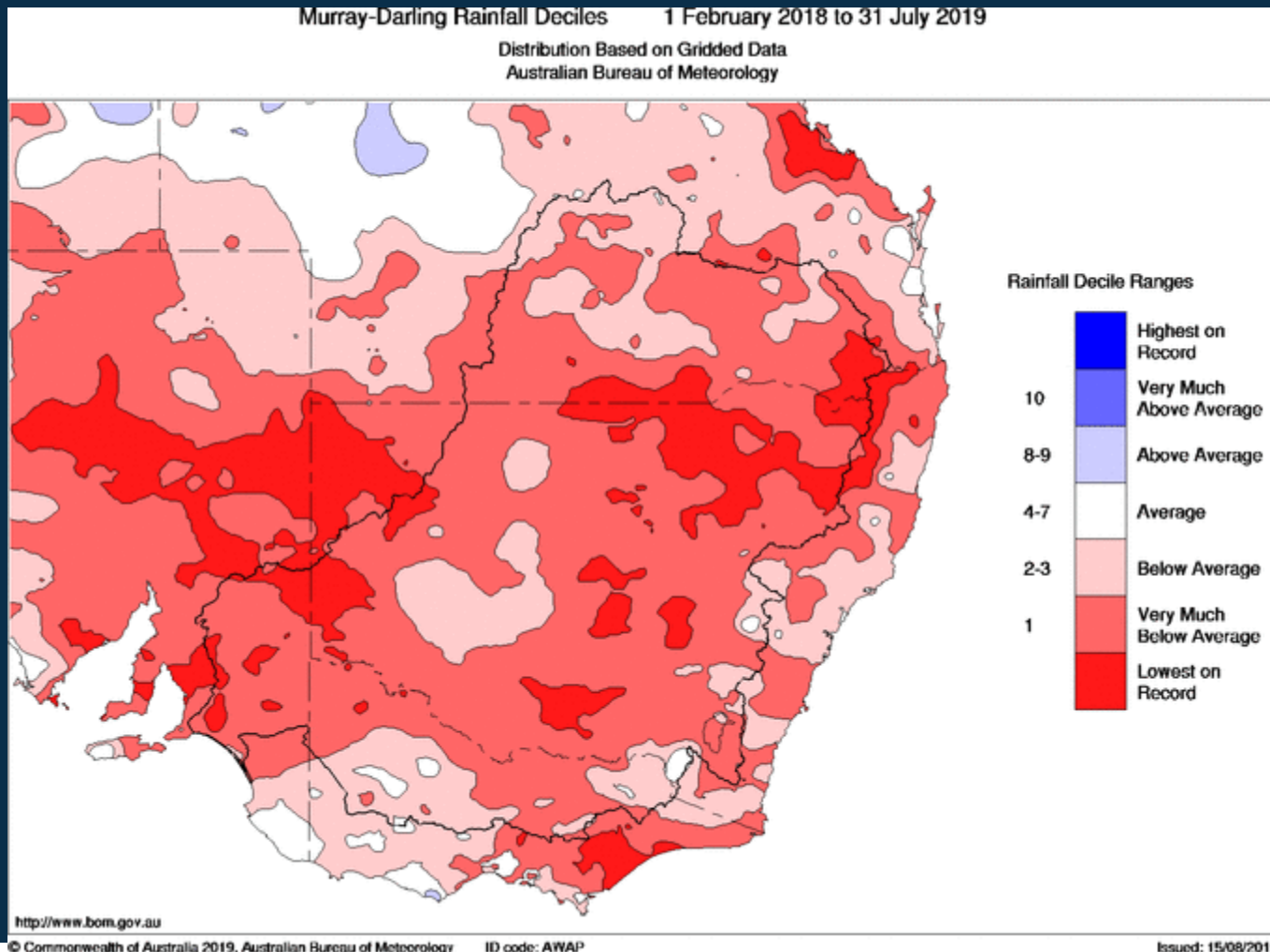
AWDs in the NSW Murray

- Shared system between NSW, Victoria and SA.
- NSW and Victoria share the headwater storages and supply SA.
- Sharing arrangement governed by the Murray Darling Basin Agreement.
- Menindee is a shared resource if it is above 480/640 GL trigger level.
- Inflows upstream of Albury shared between NSW and Vic.
- Inflows downstream of Albury belong to generating state.
- Inflows from the Lower Darling are shared when Menindee is a shared resource, otherwise they are NSW inflows.

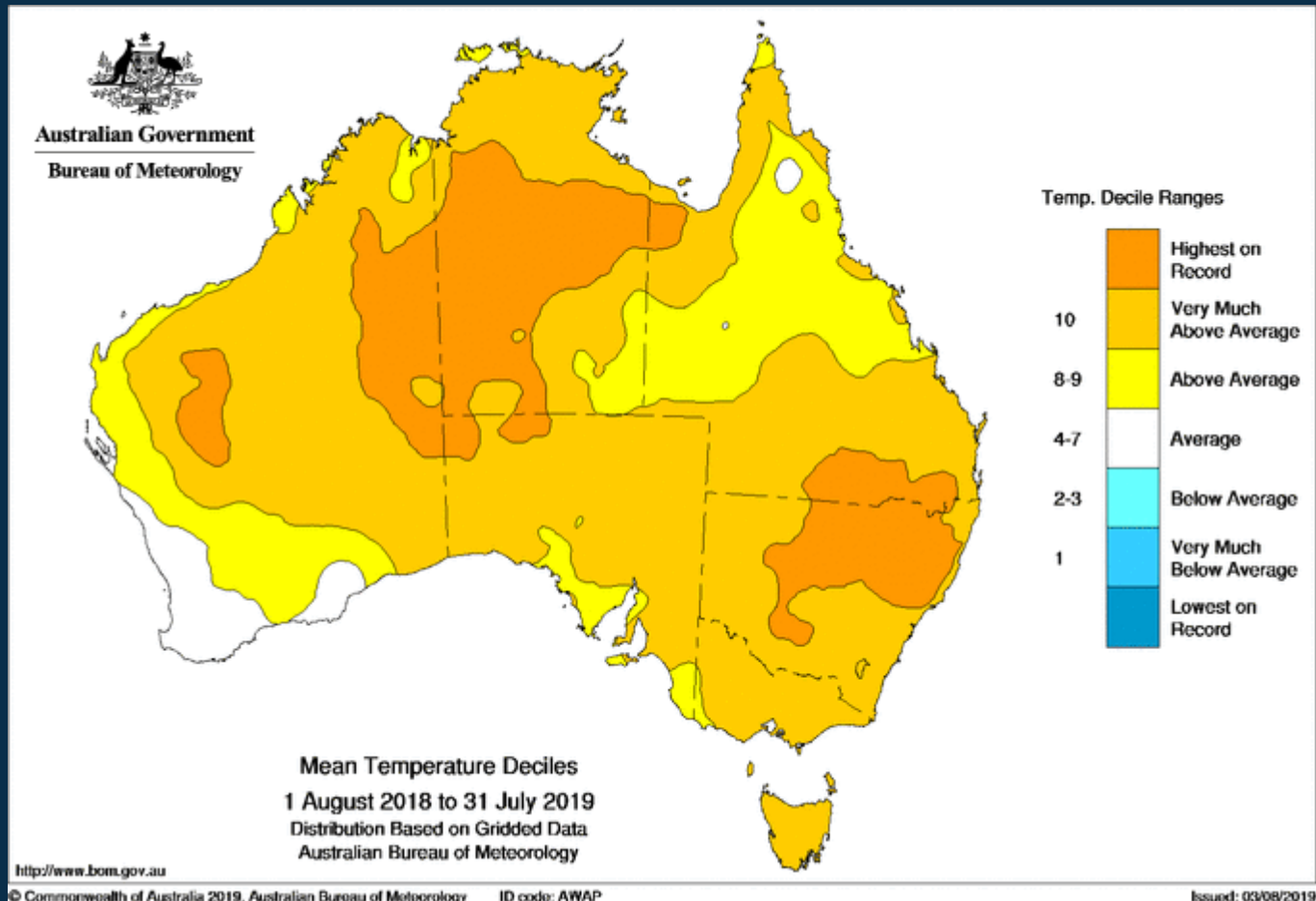
River Murray system – shared resource





Climate Conditions



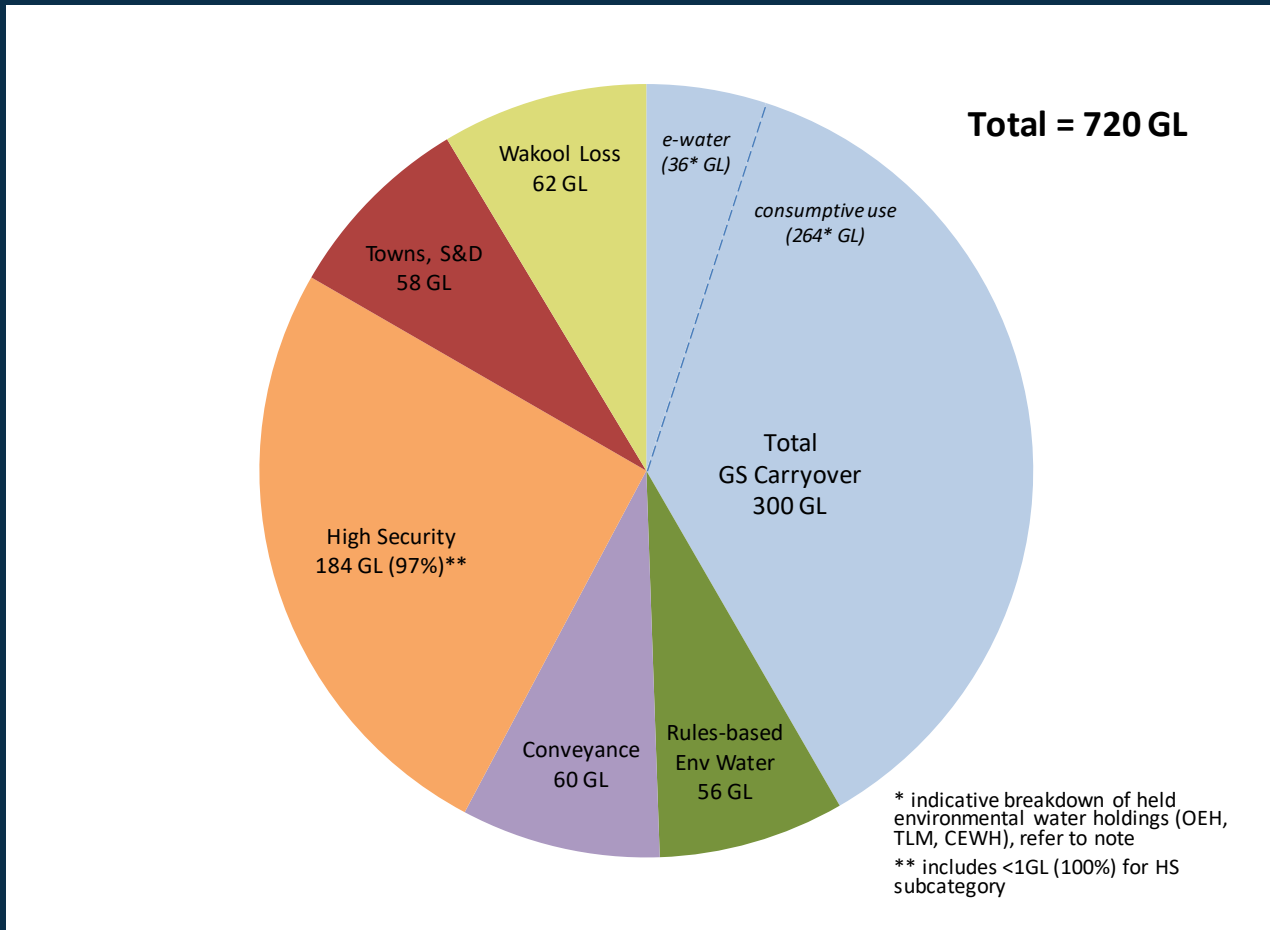
Climate Conditions



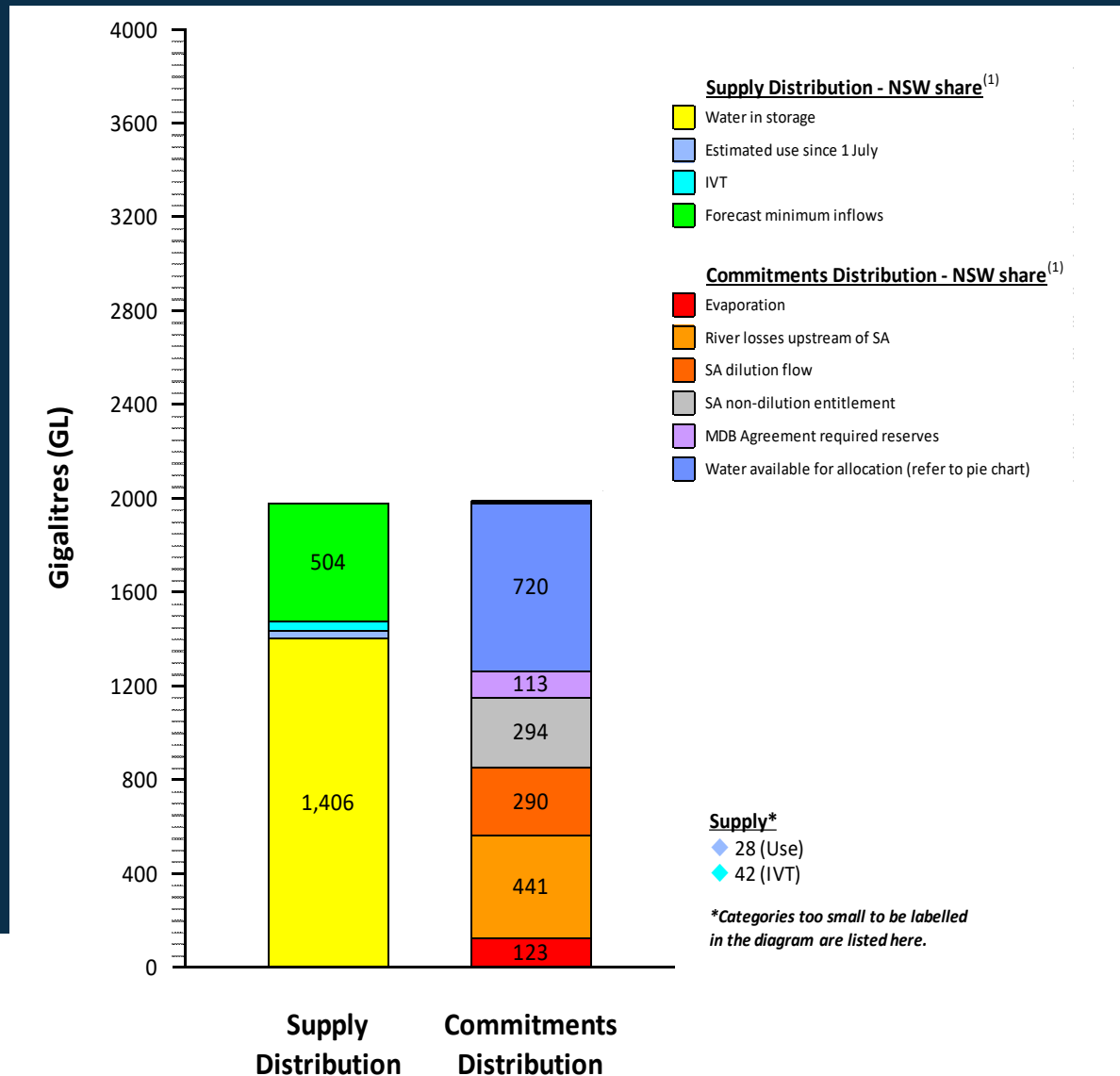
Allocation Summary

2019-20	High Security	General Security	Average Carryover	Drought Stage
Murray	97%	0%	18%	 Stage 2
Lower Darling	30%	0%	19%	 Stage 4

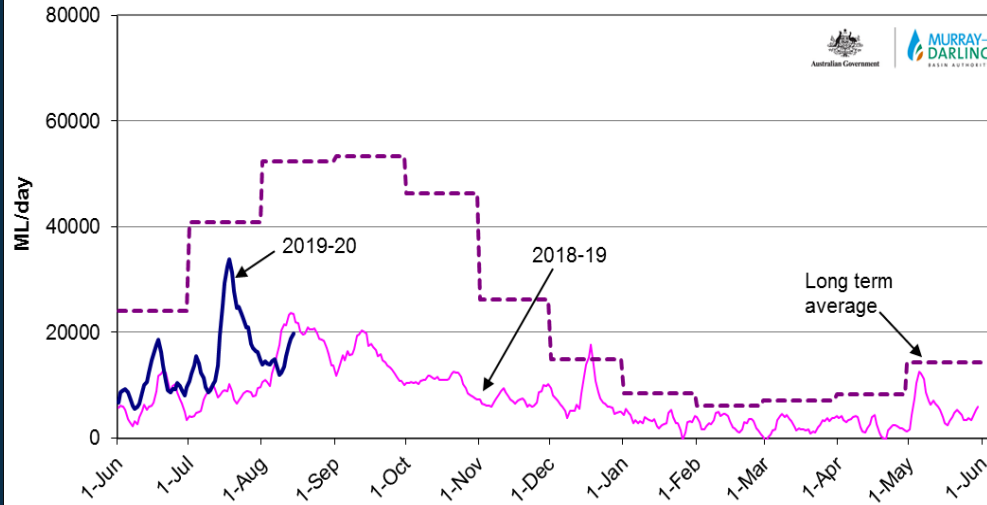
Resource Distribution (Aug 2019)



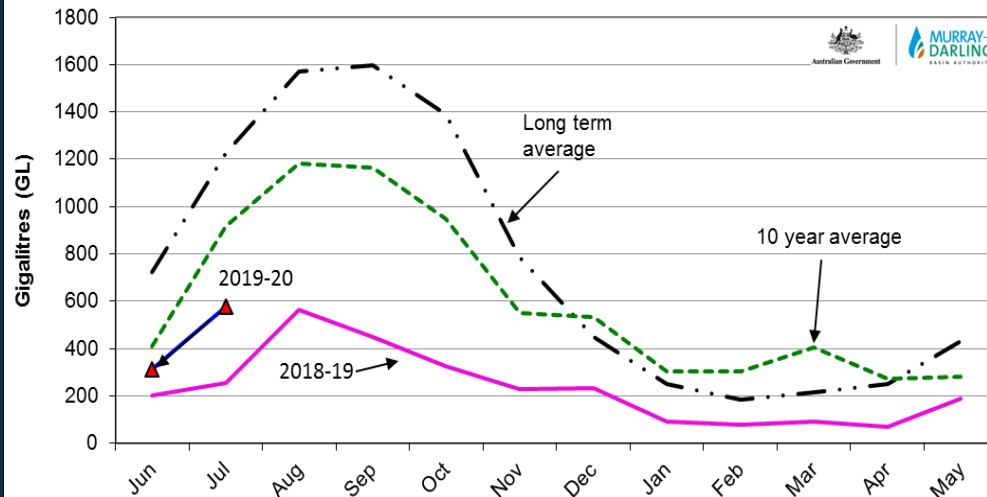
Water Balance August 2019



Murray System Daily Inflows (excl. Snowy, Darling, inter-valley trade and environmental inflows) - 5 day rolling average



Murray System Monthly Inflows (excl. Snowy, Darling, inter-valley trade and environmental inflows)



Comparison to Aug 2018

Item	Mid Aug 2018 (GL)	Mid Aug 2019 (GL)	Comments
NSW share of total resources	960	720	Continuation of dry conditions. Lower mainly due to lower carryover.
less			
Carryover	520	300	Lower carryover
Environmental	101	56	Primarily RMIF
Towns, Stock, Domestic	54	58	Broken Hill pipeline entitlement added.
Conveyance	60	60	Similar.
Wakool Loss	40	62	Higher due to June/July inflows.
High Security	185	184	Similar.
General Security	0	0	Same. Zero due to lack of resource.

Allocation Outlook (from Aug 19)

Historical Inflow Scenario	1 Oct 2019	1 Feb 2020
99 chances in 100 (extreme) (99%) [#]	0	0
9 chances in 10 (very dry) (90%)	0	0
3 chances in 4 (dry) (75%)	0 [^]	9
1 chance in 2 (mean) (50%)	8	30 [*]

Note 1: Estimated values indicative only, not guaranteed and subject to change based on actual events unfolding.

Note 2: Statistical values reflect NSW share of inflows, not whole of system inflows.

Note 3: Multi-history modelling using all years. Assumes 99% inflow conditions through 2019-20 and GS carryover of 18%.

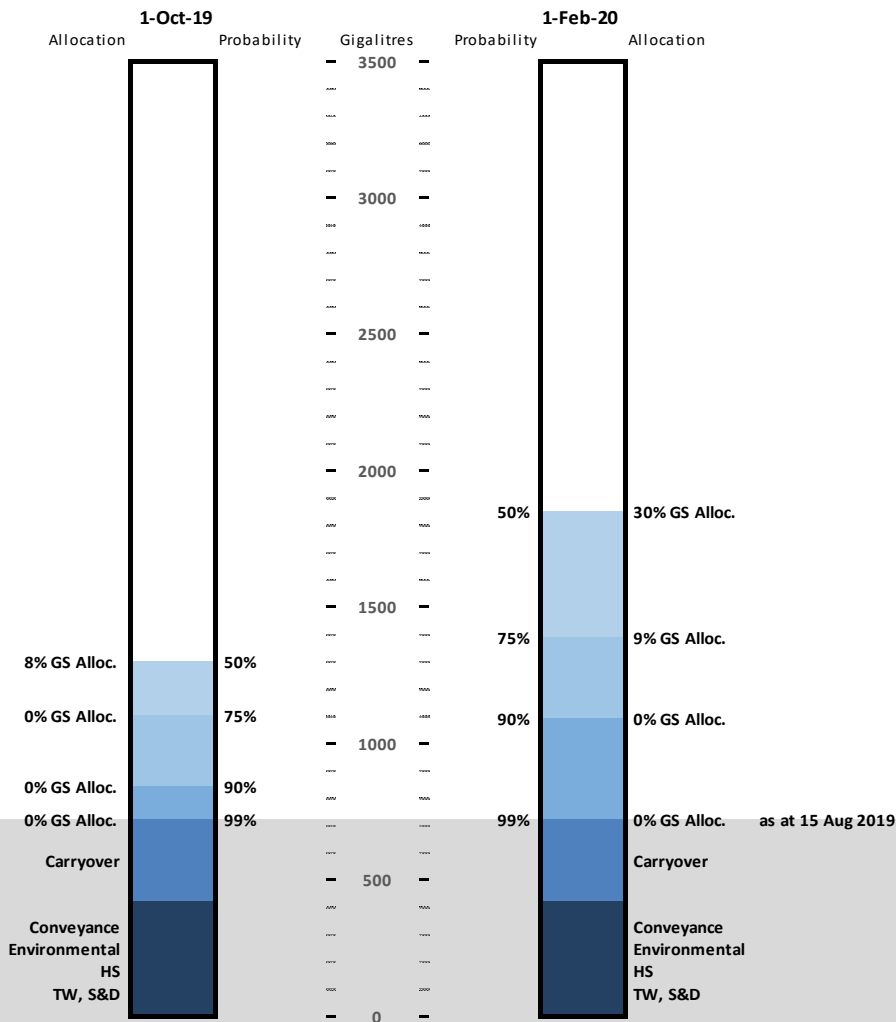
[#] Extreme dry baseline additionally includes Murrumbidgee end of system flows.

[^] By October, under dry (75th percentile) inflow conditions, Conveyance allocation is likely to be about 110 GL.

^{*} Barmah-Millewa Allowance payback commences.

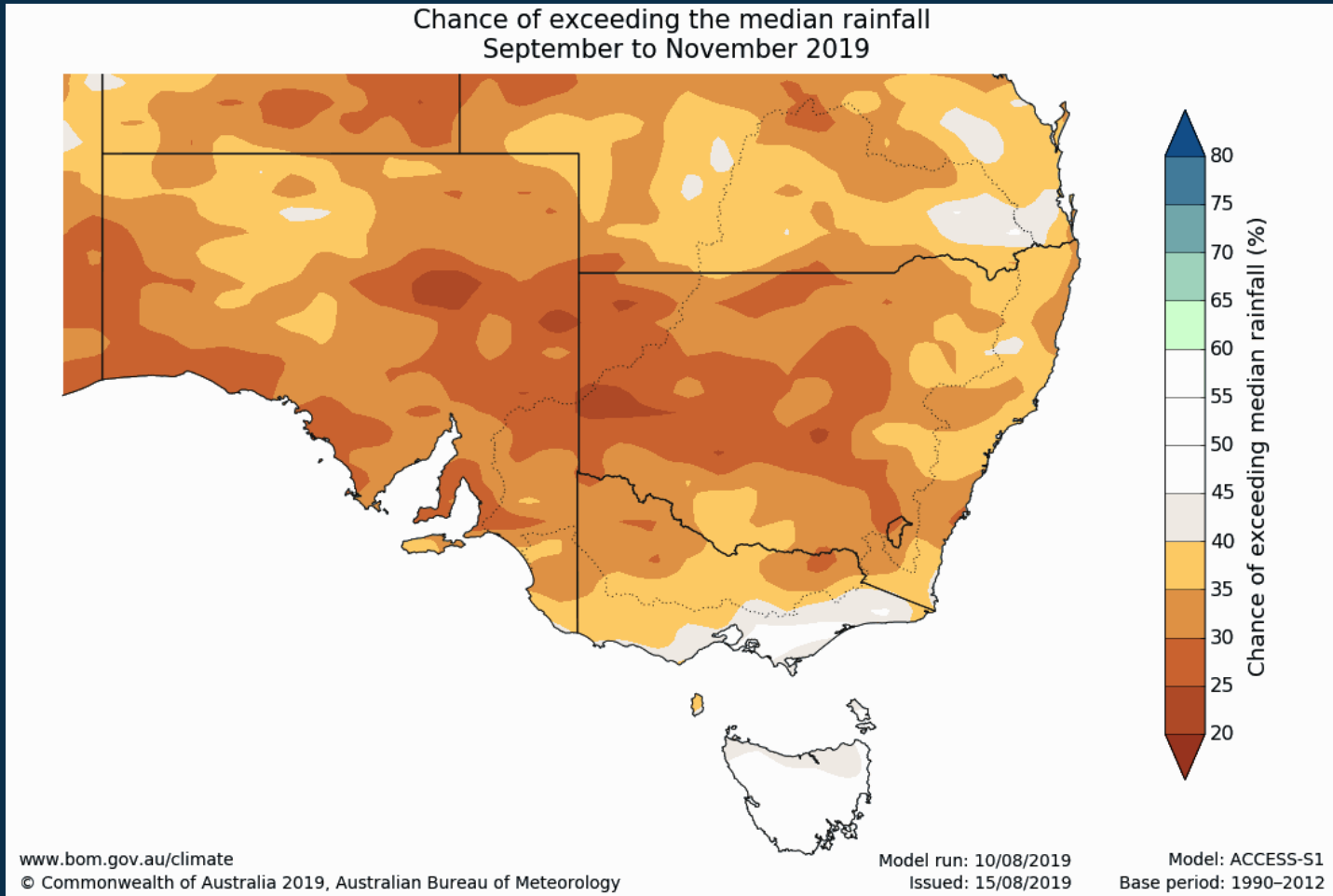
NSW Murray Valley Outlook

as at 15 August 2019

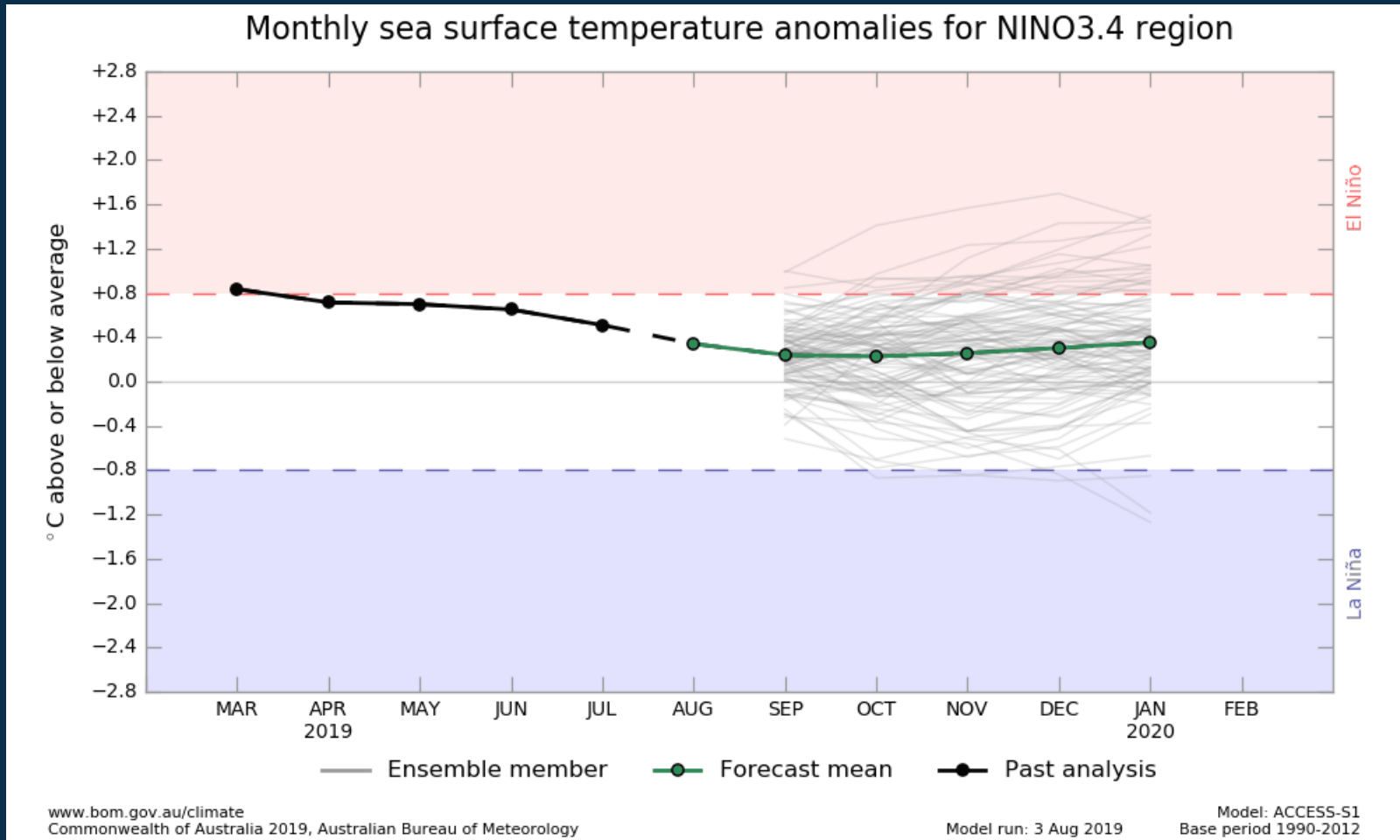


This figure provides indicative improvements in general security allocations for two forecast snapshots, 1 October 2019 and 1 February 2020. The allocation improvements are indicative only, and do not constitute guaranteed allocations. As of 15 August 2019, General Security allocation is at 0 per cent, and under 99% inflow conditions, will remain the same for the rest of the water year.

Climate Outlook – Sep to Nov 19

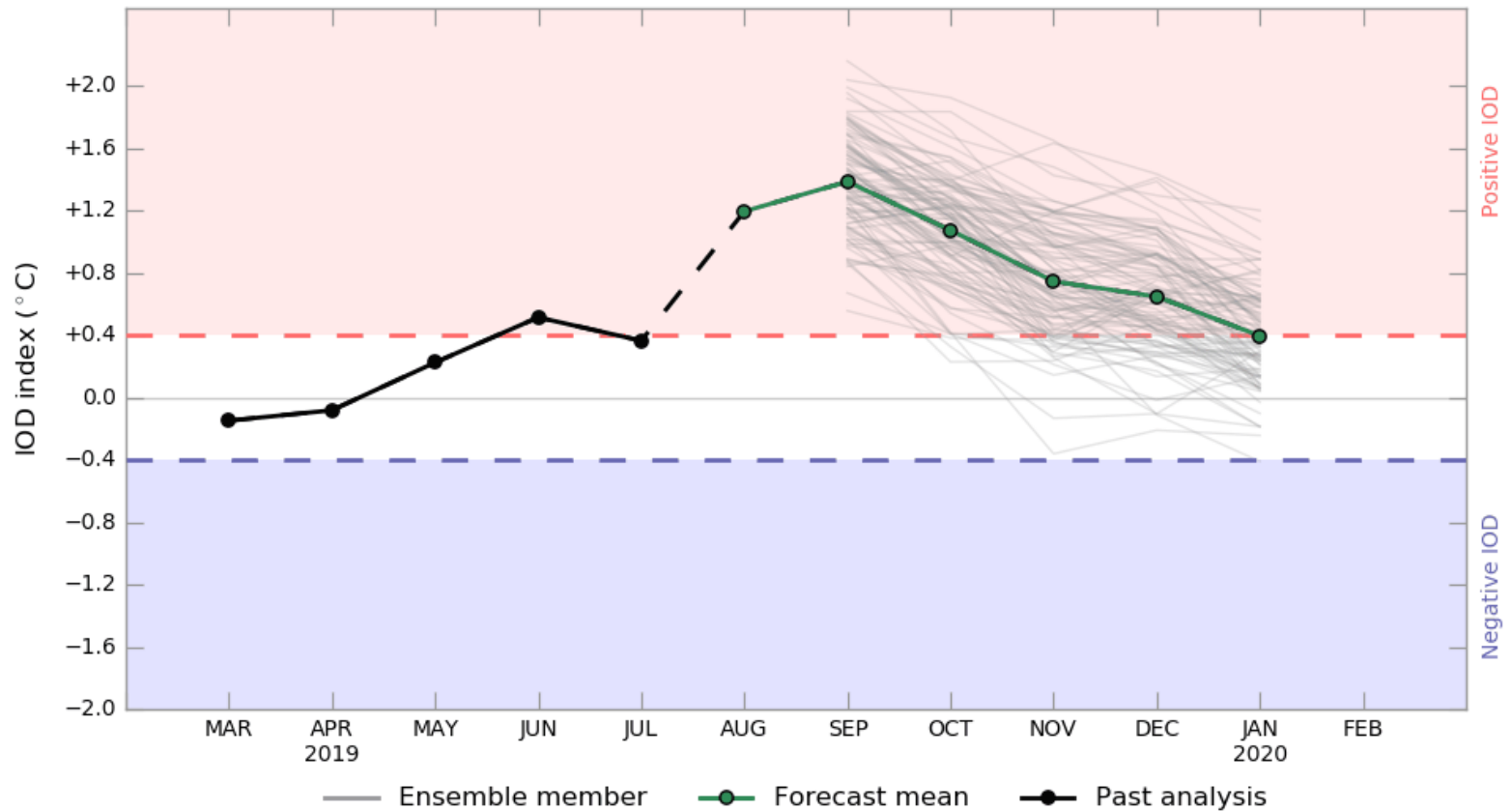


ENSO



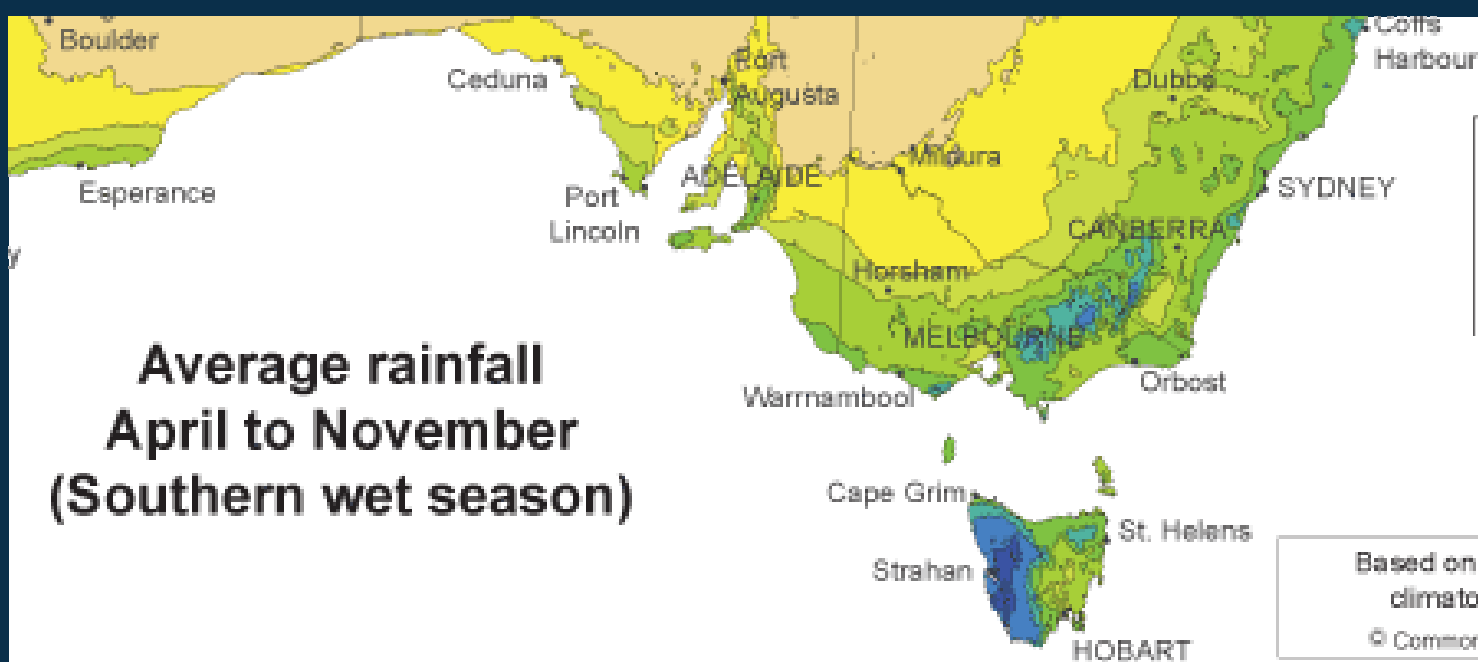
IOD

Monthly sea surface temperature anomalies for IOD region



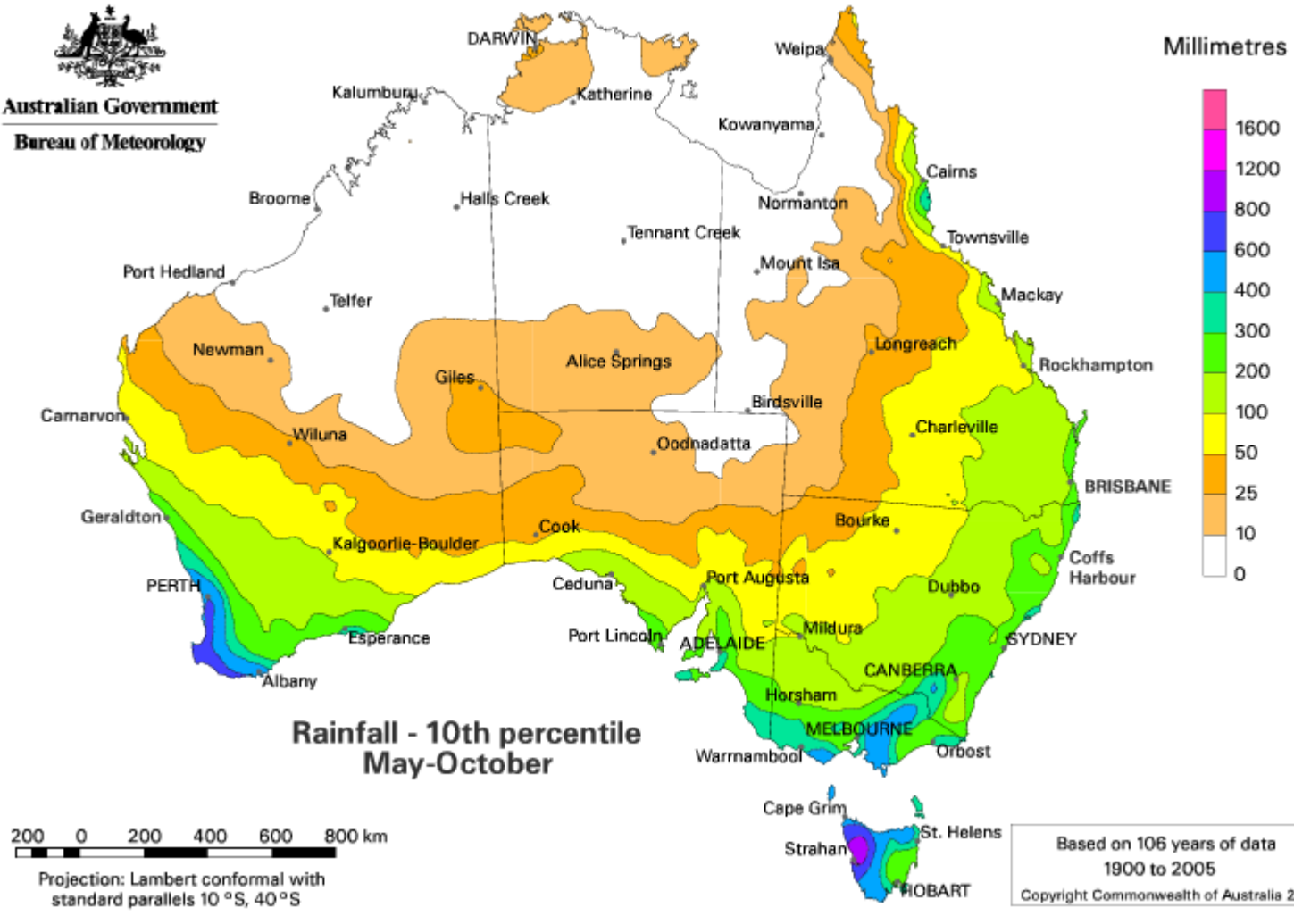
www.bom.gov.au/climate
Commonwealth of Australia 2019, Australian Bureau of Meteorology

Model: ACCESS-S1
Model run: 3 Aug 2019
Base period 1990-2012

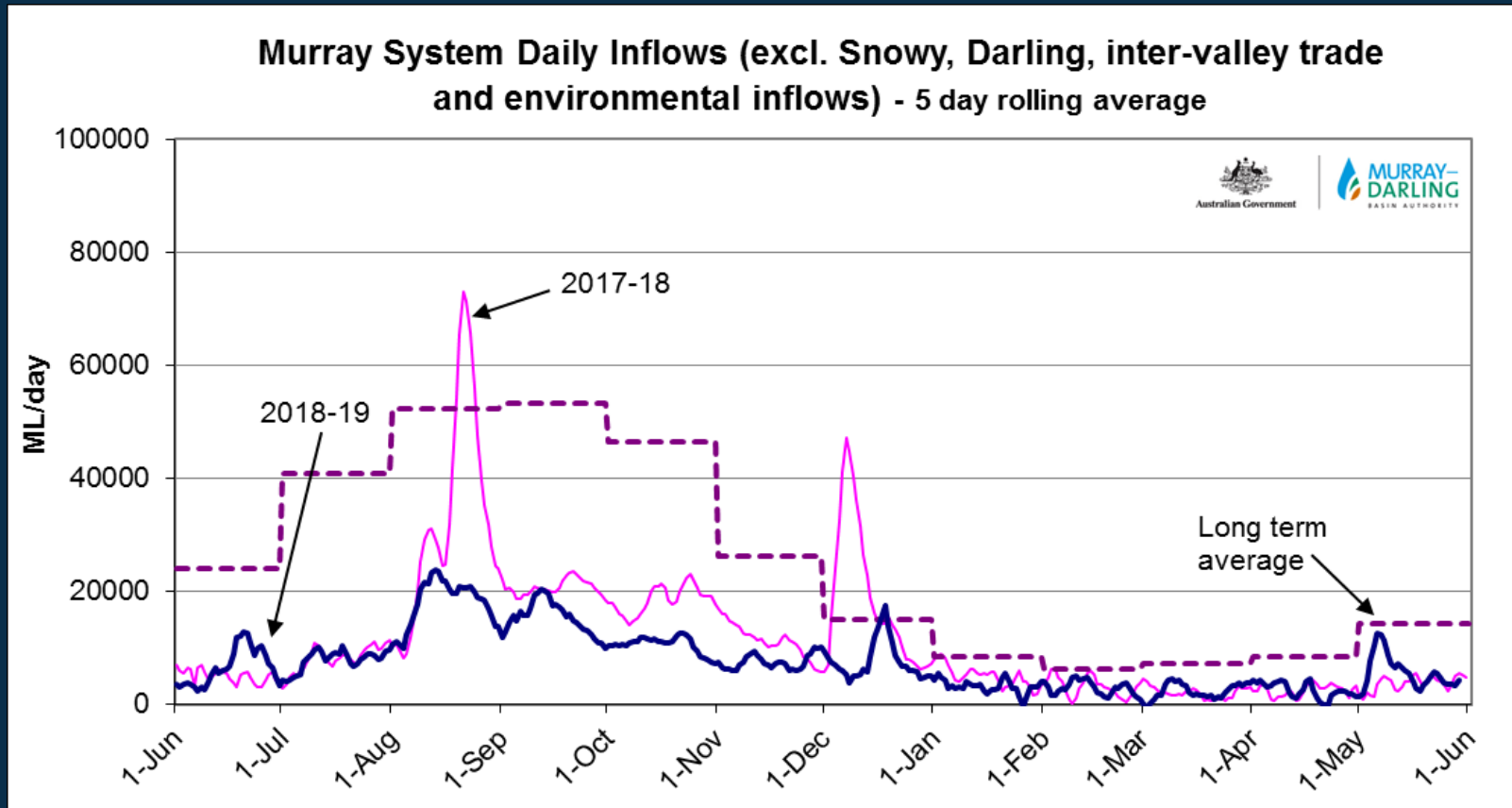


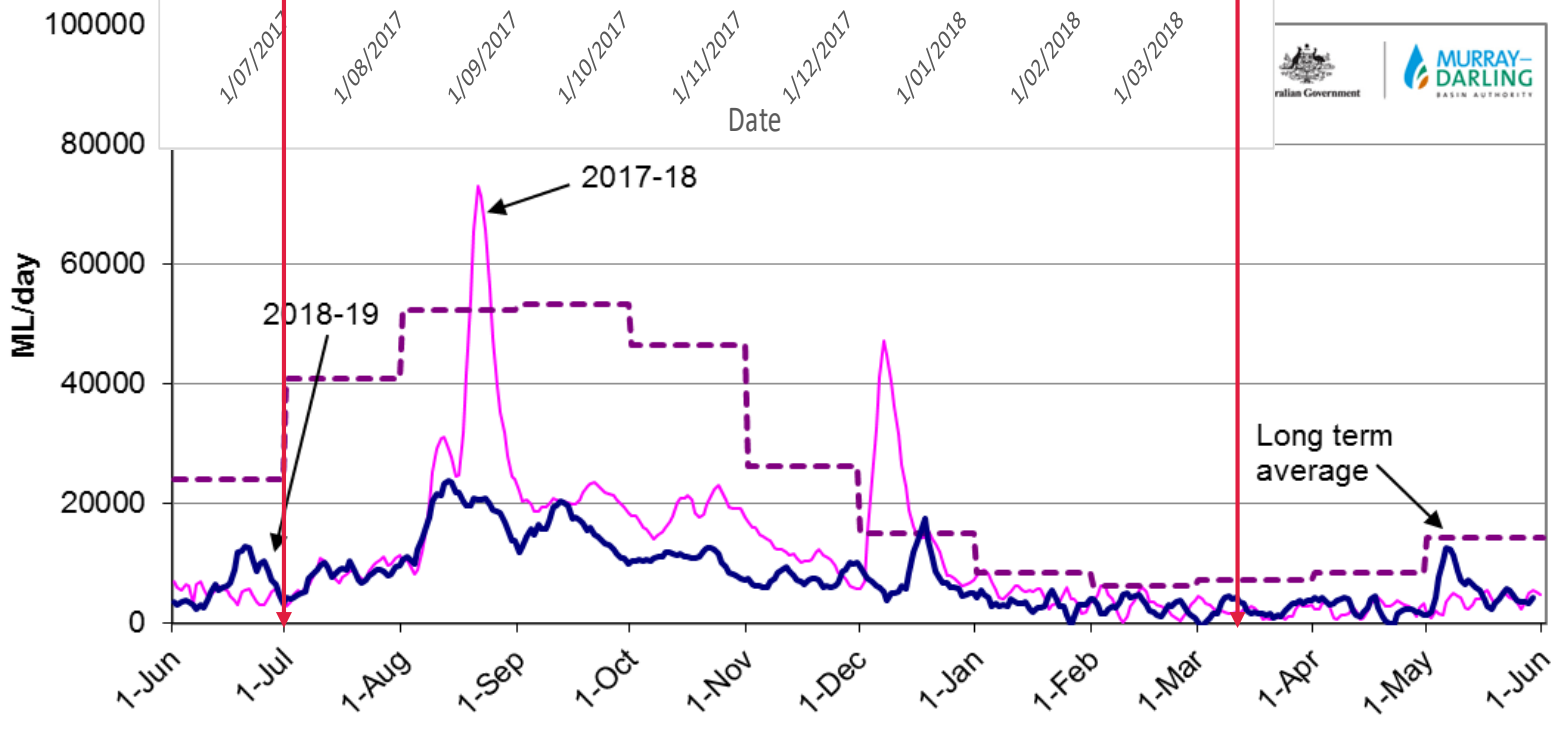
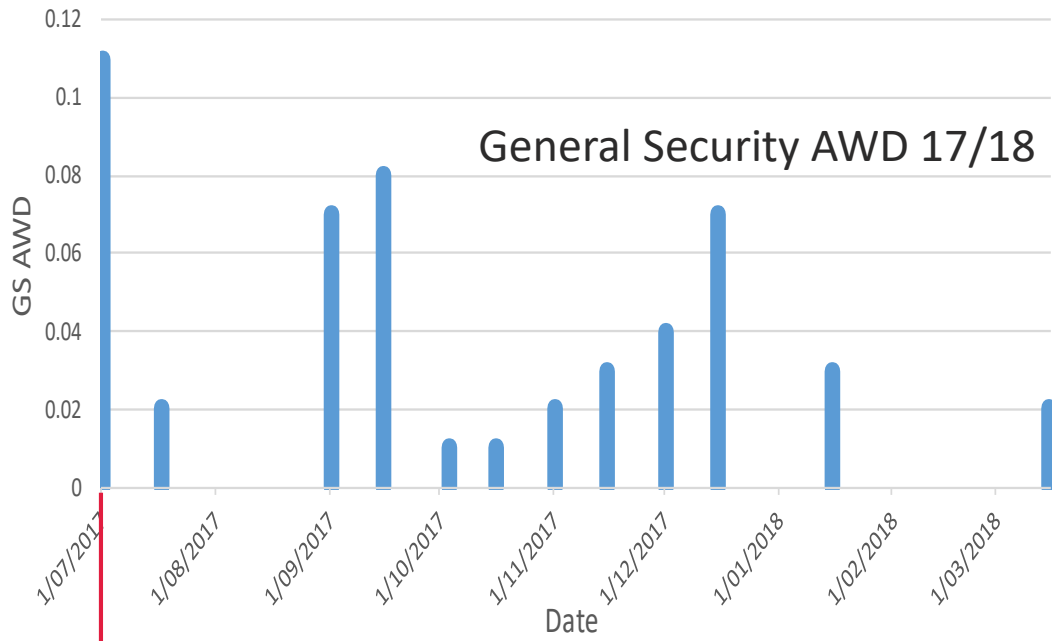


Australian Government
Bureau of Meteorology



2017/18 and 2018/19 RMS Inflows





Water Availability since 2016

Year	Usage (GL)	AWD + CO (GL)	Trade Out (GL)	C/O Forward (GL)
2015/16	860	1330	- 20	450
2016/17	1370	2400	210	730
2017/18	1540	2050	- 80	520
2018/19	695	950	- 85	300

Bulk Sharing

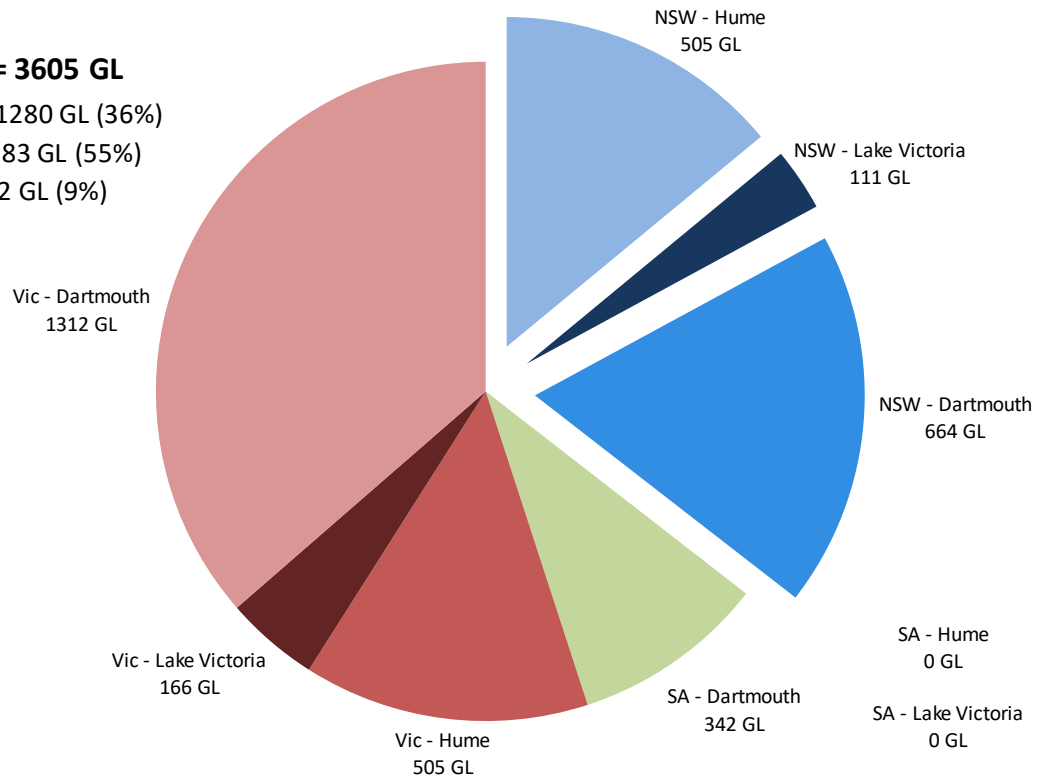
Water In Storages - end of July 2019

TOTAL = 3605 GL

NSW = 1280 GL (36%)

Vic = 1983 GL (55%)

SA = 342 GL (9%)



Entitlement Volumes (Approximate)

NSW Murray ~ 2250 GL*

Victoria ~ 1600 GL

SA ~ 750 GL

Approximate values from

<https://www.mdba.gov.au/managing-water/water-markets-trade/water-markets-product-information>

*Excluding supplementary entitlement

Thank you

Water Allocation Statements

<https://www.industry.nsw.gov.au/water>

MDBA Weekly Report

<https://www.mdba.gov.au/river-information/weekly-reports>

WaterNSW Weekly Report

<https://www.watnsw.com.au/supply/regional-nsw/availability>