

15 August 2018

Murrumbidgee Valley

Water allocation update and outlook

There has been **no increase in allocations in the Murrumbidgee regulated river system.**

Up to 40mm rainfall this month did not generate any meaningful flow response in the upper catchment tributaries. Minimal inflows have been recorded over the past three months (in the lowest three per cent of historical record). The climate outlook points to dry conditions.

	High Security	General Security	Average Carryover
Murrumbidgee	95%	6%	22%

Storage levels (as at 14 August 2018)

- Blowering Dam is 72 per cent full – steady – holding 1,191,000 megalitres (ML).
- Burrinjuck Dam is 40 per cent full – slight rise – holding 418,000 ML.

Climatic outlook

The outlook suggests an increased chance of dry conditions in the Murrumbidgee. Areas currently experiencing drought are less likely to see respite in the coming three months. Above median day and night-time temperatures are also likely during this period.

Most international climate models show El Niño is likely to develop before the end of 2018. El Niño typically means below average rainfall during winter-spring for northern and eastern Australia. Also, about half of the international climate models indicate a positive IOD event could develop in the coming months. A positive IOD typically means below average rainfall during winter and spring for southern and central Australia.

In summary, all indicators are forecasting a dry winter – spring season.

For more details: www.bom.gov.au/climate/ahead/archive/outlooks/latest-outlook.shtml

Trade

Water allocation can currently be traded **within** and **out** of the Murrumbidgee Valley, but trade **into** the Murrumbidgee Valley is closed. Water users are encouraged to monitor the WaterNSW website (www.waternsw.com.au) for information about the Murrumbidgee inter-valley trade (IVT) account balance and status of trade.

Next announcement

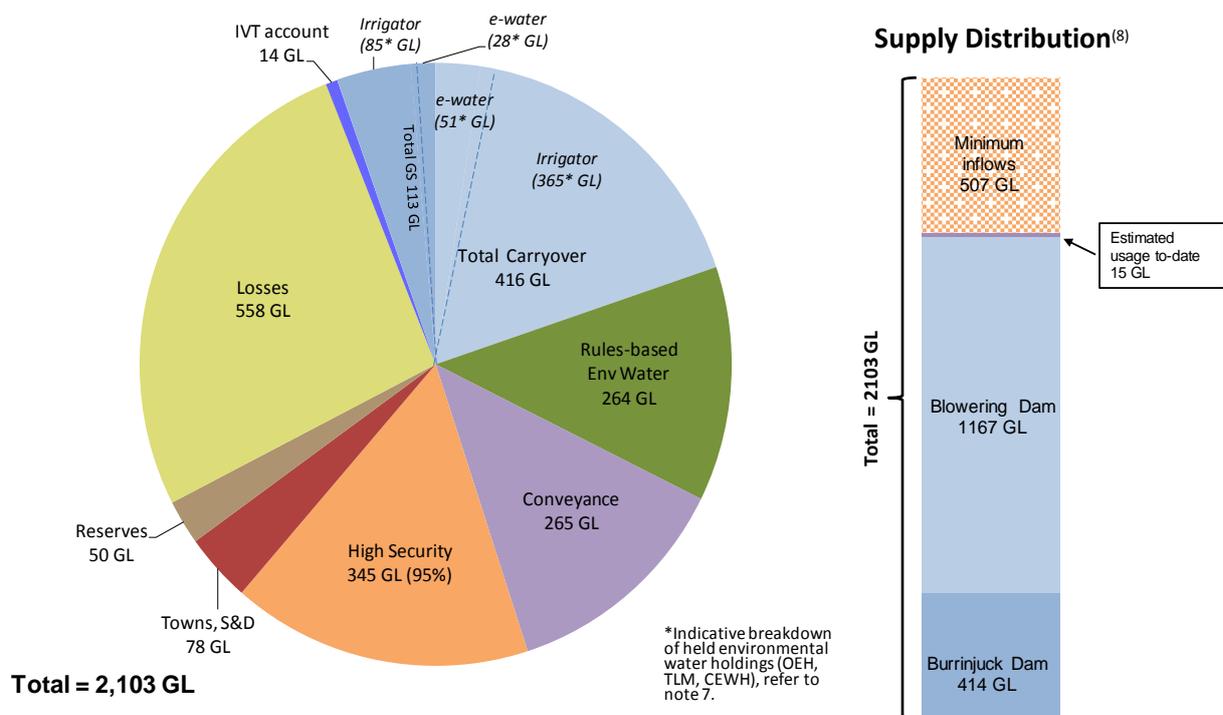
The next water allocation statement for the regulated Murrumbidgee Valley will be on **Monday 3 September 2018**. The next updated probability analysis showing the outlook for water availability under different inflow scenarios, including the rocket diagram, will be issued on Monday 17 September 2018.

Murrumbidgee Resource Assessment Data Sheet

Resource Distribution 2018-19 (at 15 August 2018)	
	Volume (GL)
Total Available Resource ⁽¹⁾	2,103
less	
Carryover (GS and Conveyance)	416
Rules based Environmental Water ⁽²⁾	264
Towns, Stock, Domestic	78 (100%)
Reserves ⁽³⁾	50
Conveyance ⁽⁴⁾	265
Announced High Security	345 (95%)
Losses (transmission, evaporation, operational) ⁽⁵⁾	558
Murrumbidgee IVT account ⁽⁹⁾	14
Late Season Inflows ⁽⁶⁾	0
Announced General Security	113 (6%)

*See notes below.

Murrumbidgee Resource Distribution 2018-19 – 15 August 2018



Notes

- 1) Total available resource – total active storage volume (Blowering & Burrinjuck Dams) at the day of assessment plus any usable flows in transit plus drought inflows for rest of the year plus Snowy Hydro's assured Required Annual Release (RAR) (including any flex (pre-release) from the prior year), as well as estimated usage to date. Snowy Hydro's net Jounama Release for this year (2018-19) to date is 484 GL, and 200GL of flex release was pre-released in 2017-18.
- 2) Rules-based environmental water – water required to be set aside under water sharing plans to provide for riverine environments. Includes end-of-system flow requirements (currently 176GL) and environmental water allowances (EWA1 = 50GL, EWA2 = 38GL, EWA3 = nil). Excludes 'licence-based' environmental water also known as held environmental water (HEW). This total volume typically reduces as commitments are met and water is used during the year.
- 3) Reserves – required primarily under statutory plans, and mainly used for emergency purposes and critical needs. Includes 25GL per dam as an operational reserve, and Provisional Storage Volumes (PSV1 = nil, PSV2 = nil).
- 4) Conveyance entitlement – a category of access licence originally issued to Irrigation Corporations to facilitate delivery of water through their channel systems. Allocation to this category is prescribed in the water sharing plans and is a function of high and general security allocations. (This category of licence in the Murrumbidgee valley, like general security, can carry over up to 30% of entitlement).
- 5) Losses – is the best estimate of the volume required to run the river under dry conditions to meet demands for the remainder of the water-year. This includes storage evaporation, transmission losses and operational loss. This estimate is regularly updated as the year unfolds.
- 6) Late Season Inflows – is the estimated inflow volume that will arrive into storage late in the year, after the peak irrigation demand season (usually post-February). This water cannot be allocated to water users at the start of the water-year, otherwise there could be an expectation that the water is available for use and can be delivered before it is captured in storage.
- 7) Held environmental water (HEW) – water administered by environmental water holders is reported here, with the associated portions of general security allocation and carryover also identified in the above pie chart. This reporting of held environmental water is the total credited to accounts (not usage) and is estimated to be 28GL of GS, 12GL of HS, 37GL of conveyance allocation and 51GL of GS carryover. These entitlements are held and/or managed either singly or jointly by various environmental holder groups, including the NSW Office of Environment and Heritage (OEH), The Living Murray (TLM) and the Commonwealth Environmental Water Holder (CEWH). Details on environmental holdings can be found on individual agency websites.
- 8) Supply Distribution – the distribution of supply includes volumes at the time of the assessment for the following categories: active volumes in the dams (excludes early release volumes of next year's Snowy Hydro commitments), indicative usage to-date (may be estimates prior to reconciliation with hydrographic updates) and assumed minimum future inflows (includes Snowy Hydro's guaranteed inflows for the water year, and late season inflows). Towards the latter half of the water year, it will also include any estimated shortfall in meeting the following next year's high priority needs.
- 9) IVT account – this represents the carryover value into 2018/19. As the account status was negative, meaning Murray water is 'owed' to the Murrumbidgee that cannot be delivered, this volume of 14GL must be set aside from allocation in the Murrumbidgee.

Murrumbidgee Resource Assessment – Comparison with this time last year

Item		Mid Ag 2017 (GL)	Mid Aug 2018 (GL)	Comments
Storage Volume (GL)	Burrinjuck	566	417	Rainfall and inflow into storage are very low since May
	Blowering	1,279	1,191	Reduced tributary inflows
	Total	1,845	1,608	Overall 12% lower storage volume compared to last year
Losses (transmission, evaporation, operations)*		571	558	Similar
1 July IVT carryover balance		89	-14	Reflects market pressures
Late Season Inflows		0	0	Similar
GS Available		23%	6%	Reduced overall water availability
Average GS Carryover		27%	22%	Lower this year

* Includes assumed loss from downstream of storages along the entire river length.

Chances of improvement

The chances of improved inflows conditions and increased allocations are as follows:

Forecast General Security allocation (per cent)

(Any carryover water can be added to these indicative allocations)

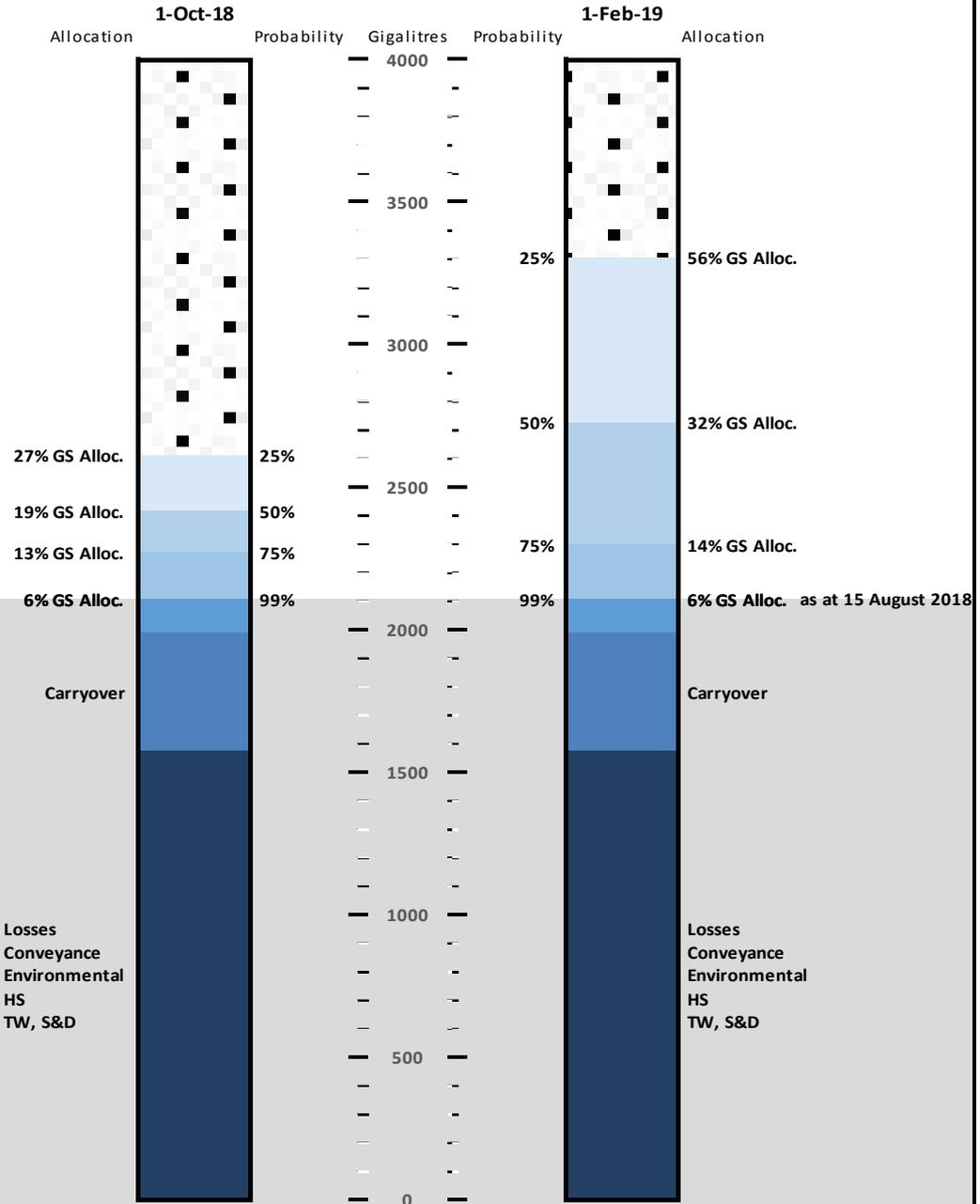
Potential Inflow Conditions	1 Oct 2018 General Security Allocation	1 Feb 2019 General Security Allocation
99 chances in 100 (extreme) (99%)	6	6
9 chances in 10 (very dry) (90%)^	6	6
3 chances in 4 (dry) (75%)	13	14
1 chance in 2 (mean) (50%)	19	32
1 chance in 4 (wet) (25%)	27	56

Storage behaviour modelling using data for all years and average general security carryover of 22%.

^ July conditions were 95% AEP.

Murrumbidgee Valley Outlook

as at 15 August 2018



This figure provides indicative improvements in general security allocations for two forecast snapshots, the 1st of October 2018 and 1st of February 2019. The allocation improvements are indicative only, and do not constitute guaranteed allocations. As of 15 August 2018, General Security allocation is at 6 per cent, and under 99% inflow conditions, will remain the same for the rest of the water year.