

16 July 2018

Murrumbidgee Valley

Water allocation update and outlook

Murrumbidgee general security has **increased by 2 per cent**, bringing the total this year (2018-19) to 5 per cent of entitlement. Settling end of year data, plus some rainfall in the past month which helped meet some demand and system losses, has provided a small improvement in available resources.

This assessment is based on an estimated average carryover figure of 23 per cent of entitlement. Carryover volume is expected to be confirmed and finalised at the end of July.

	High Security	General Security	Average Carryover
Murrumbidgee	95%	5%	23%^

^ best estimate, as account processing has not been finalised.

Storage levels (as at 13 July 2018)

- Blowering Dam is 69 per cent full – steady – holding 1,131,000 megalitres (ML).
- Burrinjuck Dam is 40 per cent full – steady – holding 414,000 ML.

Climatic outlook

The Bureau of Meteorology outlook for August to October indicates likely dry conditions and temperatures most likely to be above average for the region.

The Bureau's climate models show that the El Nino-Southern Oscillation and Indian Ocean Dipole indicators are likely to remain neutral over the forecast period, but having a greater than usual chance of an El Nino event forming later in the year.

Trade

Water 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.watarnsw.com.au) for information about the Murrumbidgee inter-valley trade (IVT) account balance and status of trade.

Next announcements

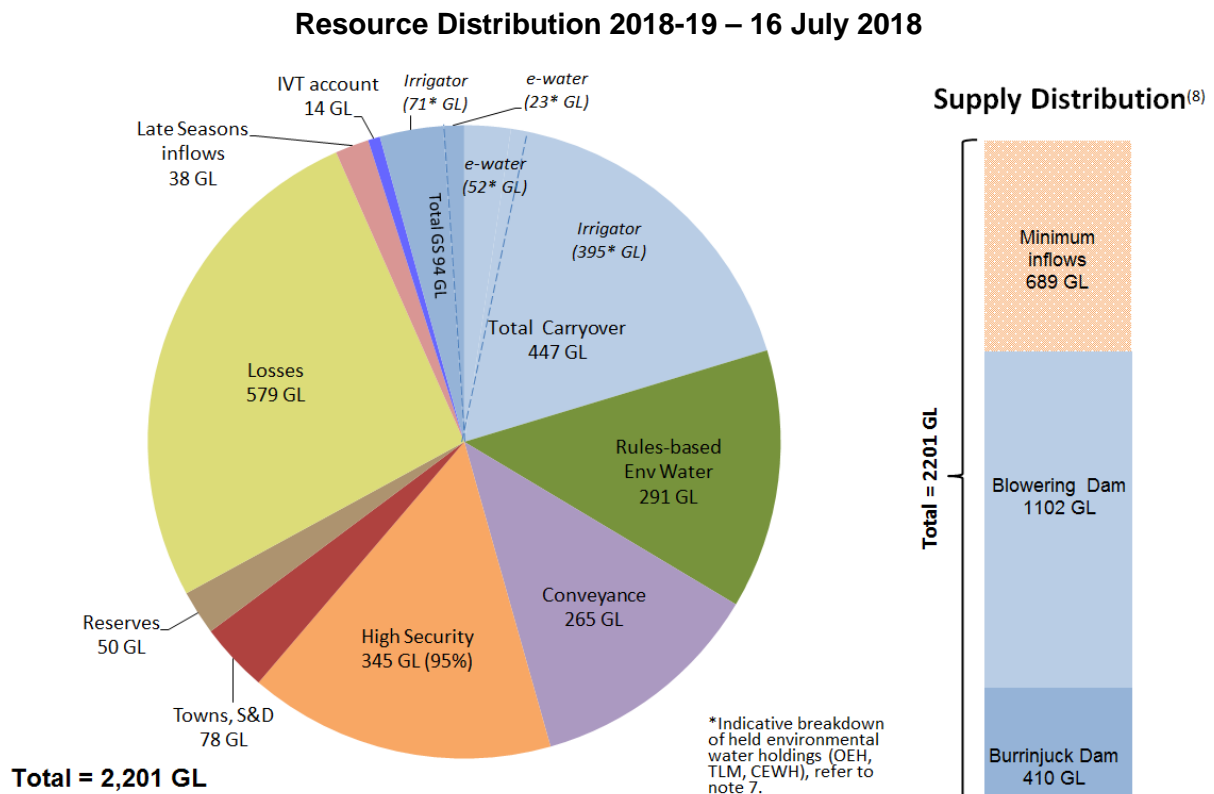
The next water allocation statement for the regulated Murrumbidgee valley will be on Wednesday **1 August 2018**.

The next updated probability analysis showing likely improvement in water availability under different inflow scenarios, including the rocket diagram, will be issued on Wednesday 15 August 2018.

Murrumbidgee Resource Assessment Data Sheet

Resource Distribution 2018-19 – 16 July 2018	
	Volume (GL)
Total Available Resource ⁽¹⁾	2,201
less	
Carryover (GS and Conveyance)	447
Rules based Environmental Water ⁽²⁾	291
Towns, Stock, Domestic	78 (100%)
Reserves ⁽³⁾	50
Conveyance ⁽⁴⁾	265
Announced High Security	345 (95%)
Losses (transmission, evaporation, operational) ⁽⁵⁾	579
Murrumbidgee IVT account ⁽⁹⁾	14
Late Season Inflows ⁽⁶⁾	38
Announced General Security	94 (5%)

*See notes below.



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) is 392 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 208GL) and environmental water allowances (EWA1 = 50GL, EWA2 = 33GL, 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 = 25GL, 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 23GL of GS, 12GL of HS, 36GL of conveyance allocation and 52GL 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 is currently negative, this value will reduce to zero as back-trade into the Murrumbidgee occurs.

Murrumbidgee Resource Assessment – Comparison with this time last year

Item		Mid Jul 2017 (GL)	Mid Jul 2018 (GL)	Comments
Storage Volume (GL)	Burrinjuck	644	413	With dry weather, inflows have reduced
	Blowering	1,305	1,126	Reduced tributary inflow
	Total	1,949	1,539	Overall 21% lower storage volume compared to last year
Losses (transmission, evaporation, operations)*		581	579	Similar
1 July IVT carryover balance		89	-14	Reflects market pressures
Late Season Inflows		47	38	Similar
GS Available		20%	5%	Reduced overall water availability
Average GS Carryover		30%	23%	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)

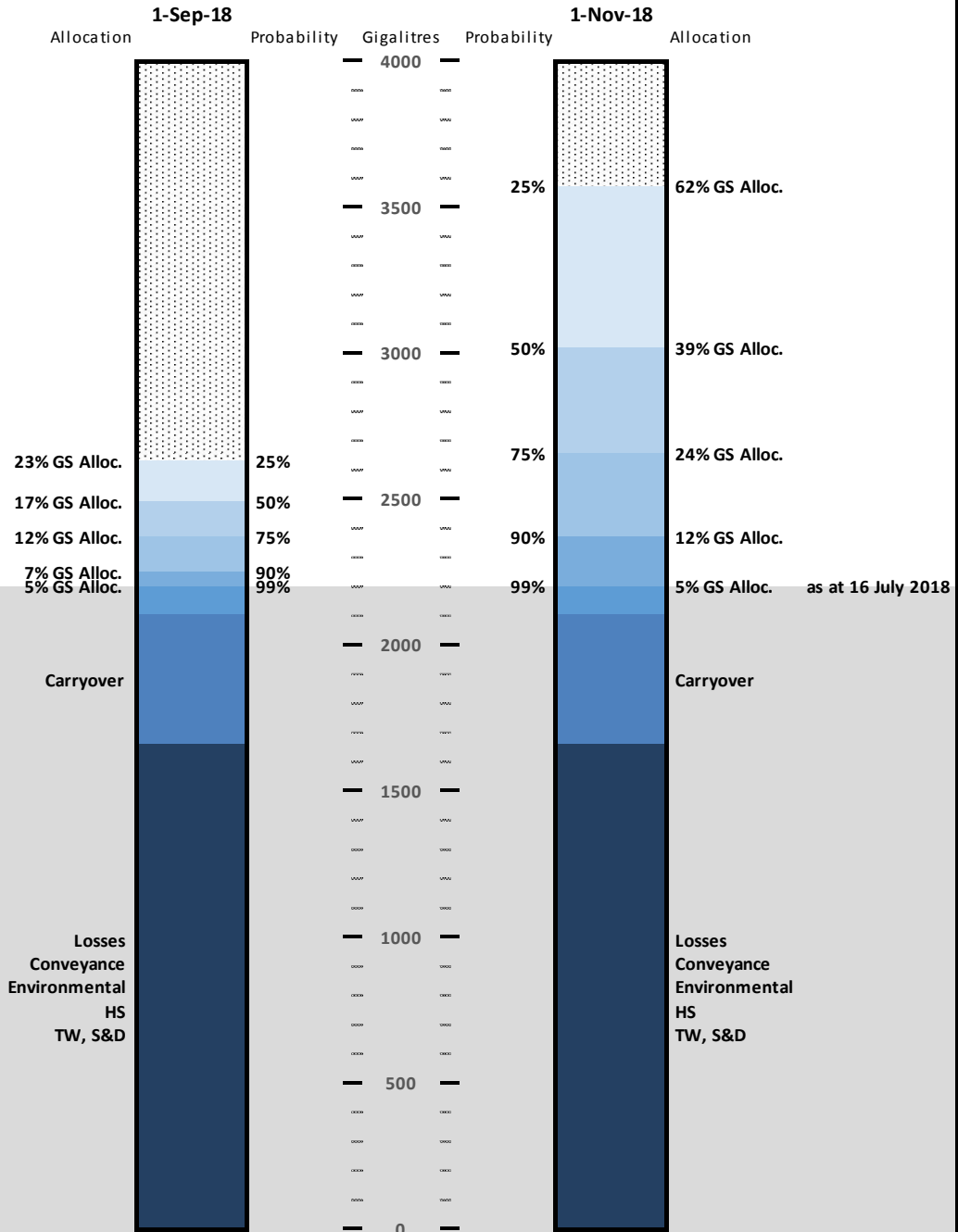
Potential Inflow Conditions	1 Sept 2018 General Security Allocation	1 Nov 2018 General Security Allocation
99 chances in 100 (extreme) (99%)	5	5
9 chances in 10 (very dry) (90%) [^]	7	12
3 chances in 4 (dry) (75%)	12	24
1 chance in 2 (mean) (50%)	17	39
1 chance in 4 (wet) (25%)	23	62

Storage behaviour modelling using data for all years and general security carryover of about 23%.

[^] June conditions were 87% AEP.

Murrumbidgee Valley Outlook

as at 16 July 2018



This figure provides indicative improvements in general security allocations for two forecast snapshots, the 1st of September 2018 and 1st of November 2018. The allocation improvements are indicative only, and do not constitute guaranteed allocations. As of 16 July 2018, General Security allocation is at 5 per cent, and under 99% inflow conditions, will remain the same for the rest of the water year.