

16 April 2018

## Murrumbidgee Valley

### Water allocation update and outlook

#### Allocations

Murrumbidgee general security allocation has **increased by 3 per cent, bringing the total this year (2017-18) to 41 per cent of entitlement.**

Increased inflow from Snowy Hydro into Blowering Dam, together with reduced delivery losses, has contributed towards this small improvement in resource availability. Rainfall has been minimal.

All high priority commitments on 1 July 2018, including carryover, are assured. However, at this early stage, general security entitlements will probably commence the new water (1 July 2018) year with zero or low allocation.

	High Security	General Security	Average Carryover
Murrumbidgee	95%	41%	27%

#### Storage levels (as at 13 April 2018)

- Blowering Dam is 45 per cent full – increasing – holding 756,000 ML.
- Burrinjuck Dam is 40 per cent full – steady – holding 413,000 ML.

#### Climatic outlook

The Bureau of Meteorology's seasonal outlook indicates that over May to July there is an even chance of median rainfall conditions in the valley. Warm days and nights are likely in May, with warm nights likely to continue over the three months.

The El Niño–Southern Oscillation (ENSO) outlook remains neutral, and is expected to remain so through autumn and winter. The Indian Ocean Dipole (IOD) is also neutral, with the possibility of a negative IOD event from June. With mostly neutral climate drivers, there is no strong push towards overall wetter or drier conditions. However, the Bureau warns that ENSO and IOD climate model outlooks have low accuracy during autumn and hence should be viewed with caution.

#### Trade

Trade **out** and **within** the Murrumbidgee Valley is open, but trade **into** the valley is closed. Water users are encouraged to monitor the WaterNSW website ([www.waternsw.com.au](http://www.waternsw.com.au)) for information about the Murrumbidgee inter-valley trade (IVT) account balance and status of trade.

#### Next announcements

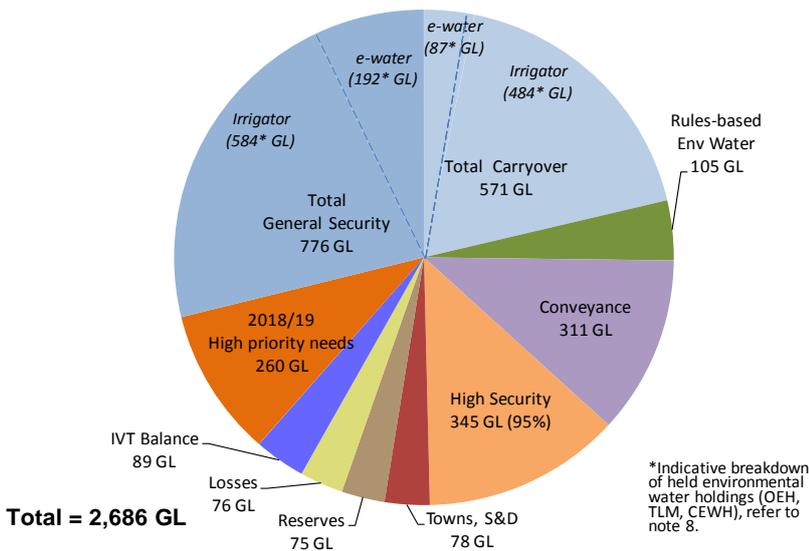
The next allocation update will be on **Tuesday 15 May 2018**. It will be the last update issued this water year and will also provide the latest estimates of expected opening (1 July) allocations and the likelihood of improvement under different inflow scenarios.

**Murrumbidgee Resource Assessment Data Sheet**

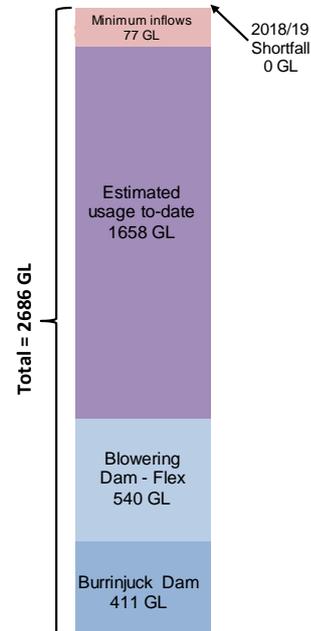
<b>Resource Distribution (16 April) for 2017-18</b>	
	Volume (GL)
Total Available Resource <sup>(1)</sup>	2,686
<b>less</b>	
Carryover (GS and Conveyance)	571
Rules based Environmental Water <sup>(2)</sup>	105
Towns, Stock, Domestic	78 (100%)
Reserves <sup>(3)</sup>	75
Conveyance <sup>(4)</sup>	311
Announced High Security	345 (95%)
Losses (transmission, evaporation, operational) <sup>(5)</sup>	76
Murrumbidgee IVT balance carryover at 1 July 2017	89
Late Season Discount <sup>(6)</sup>	0
Announced General Security	776 (41%)
Future (2018/19) high priority needs <sup>(7)</sup>	260

\*See notes below.

**Resource Distribution 2017-18  
Murrumbidgee Valley - 16 April 2018**



**Supply Distribution<sup>(9)</sup>**



## Notes

- 1) Total available resource – total active storage volume (Blowering and Burrinjuck Dams) at the day of assessment plus any usable flows in transit plus drought inflows for rest of the year plus estimated usage to date including Snowy Hydro's net Jounama Release of 879 GL from 1 May 2017 to 11 April 2018. Excludes early release volume of next year's Snowy Hydro commitments (referred to as pre-release).
- 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 29GL) and environmental water allowances (EWA1 = 50GL, EWA2 = 26GL, 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 Discount – 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 before it is captured in storage.
- 7) Future high priority needs – at this time of year, we look ahead to next water year (2018/19) to ensure there is sufficient resource set aside to meet high priority needs on 1 July 2018. The required volume to meet these commitments is currently 260GL. This value may change from month to month based on the projected historical inflow sequence used in the assessment and accounting for actual delivery losses incurred during the month.
- 8) Held environmental water (HEW) – as a trial, reporting of held environmental water administered by environmental water holders is being 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 192GL of GS, 12GL of HS, 43GL of conveyance allocation and 87GL 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). Interested parties should refer to individual Agency websites for more detailed information on held environmental water holdings.
- 9) Supply Distribution – as a trial, the distribution of supply is being provided. This 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). At this time of year, it also indicates any existing shortfall in meeting next year's (2018/19) high priority needs (refer to note 7).

## Preliminary water availability outlook for 2018-19

### Key information

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- This preliminary outlook for the likely 1 July 2018 water allocation is conservatively based on assumed 95<sup>th</sup> percentile inflows for the remainder of the current 2017/18 water year, based on current very dry conditions. Indicative estimates for September and November 2018 allocations under a range of possible inflow scenarios are provided to assist water users to plan ahead.
- For context, the Murrumbidgee Valley has experienced ‘very dry’ (87<sup>th</sup> percentile) inflows this year (July to March), which are the lowest inflows since the Millennium drought ended in 2010. For the period January to March, 75<sup>th</sup> percentile conditions have been experienced.
- In the Murrumbidgee water source, general security and conveyance licences can carry over water up to a maximum of 30 per cent of entitlement, and the account limit (allocation plus carryover) is 100 per cent of entitlement.
- It is difficult to reliably predict end-of-year carryover, as it is highly dependent on weather conditions and individual decisions by water users. With this assessment the carryover estimate has been revised up by 3 per cent to about 19 per cent of entitlement (about 360,000 ML), consistent with the allocation increase.
- Access to inter-valley trade in 2018-19 is dependent on the balance of the IVT account. The 30 June balance will carry forward unchanged to 1 July 2018. Water users should refer to WaterNSW for important seasonal trade closure dates.
- Once the commencing allocations are announced on 1 July 2018, regular assessments will be undertaken and allocation announcements made fortnightly on the 1st and 15th of each month, or the next working day following, until full allocations are achieved.
- This preliminary forecast of water availability for 2018-19 will be updated in mid-May, which will be the last announcement for this water year.

### Indicative allocations on 1 July 2018

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- Full allocation can be expected for all towns, as well as domestic and stock access licences.
- Private carryover will be fully deliverable. At this early stage, it is estimated that the average carryover across the valley will be close to 19 per cent of entitlement.
- Murrumbidgee High Security access licences will receive an initial allocation of 95 per cent of entitlement, consistent with the Murrumbidgee regulated river water sharing plan.
- Under ‘extreme dry’ inflow conditions (99<sup>th</sup> percentile) through to the end of this (2017-18) water year, there will be zero (0) per cent commencing general security allocation on 1 July 2018.
- Water will be allocated to conveyance licences, commensurate with the opening general security allocation.
- Supplementary (including Lowbidgee) access licence holders will receive a full allocation; however, diversion is only allowed during periods of announced supplementary access.
- Water in Environmental Water Allowances (EWA) accounts will be available in accordance with the rules of the water sharing plan.
- Murrumbidgee inter and intra valley trade will operate in accordance with existing procedures and protocols, particularly in relation to the inter-valley trade (IVT) account limits.
- Releases from headwater storages will be managed to maximise water availability and deliverability including equalising the risk of spill.

## Chances of improvement

The chances of improved general security allocation in the Murrumbidgee after 1 July 2018 based on different inflow conditions is provided in the following table under a variety of conditions.

### Forecast General Security allocation (per cent) – assumes very dry inflows (95%) to 30 June 2018 # \*\*

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

Potential Inflow Conditions 2018-19	1 Sept 2018	1 Nov 2018
99 chances in 100 (extreme) (99%)*	0	0
9 chances in 10 (very dry) (90%)^, **	6	14
3 chances in 4 (dry) (75%)**	12	27
1 chance in 2 (mean) (50%)**	20	48

# Storage behaviour modelling using all years and general security carryover of 19%.

^ Currently tracking in 2017/18 in this (very dry) vicinity (about 87<sup>th</sup> percentile).

\* The extreme dry (99%) inflow conditions assumes 99% through the remainder of 2017/18, and through 2018/19.

\*\* Wetter scenarios assume dry (95%) inflows to 30 June 2018, then the respective inflow scenario for 2018-19.