

15 May 2018

Murrumbidgee Valley

Water allocation update and outlook

Murrumbidgee general security has **increased by 4 per cent to 45 per cent of entitlement**. This means that with carryover, overall general security water availability has reached 72 per cent of entitlement in the valley.

This increase has come from the Snowy Scheme through discretionary release for power generation by Snowy Hydro Limited. Apart from this, dry conditions have continued and natural inflows into storages have remained minimal.

	High Security	General Security	Average Carryover
Murrumbidgee	95%	45%	27%

Storage levels (as at 14 May 2018)

- Blowering Dam is 47 per cent full – steady – currently at 788,000 ML.
- Burrinjuck Dam is 39 per cent full – steady – currently at 409,000 ML.

Climatic outlook

The Bureau of Meteorology is forecasting equal likelihood of above or below median rainfall conditions during May to July for the valley, with temperatures likely to be warmer than average.

The main climate drivers of the El Niño–Southern Oscillation (ENSO) and Indian Ocean Dipole (IOD) both remain neutral, indicating there is no strong push towards broad scale wetter or drier than average conditions for the region.

Trade

Water can currently be traded **out** of the Murrumbidgee Valley, but trade **into** the Murrumbidgee Valley is closed. Allowing trade **into** the valley for use and pushing the IVT account balance negative would adversely impact water availability in 2018-19. Trade within the valley remains open. 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.

Water users are reminded that season closing dates for inter-state and inter/intra-valley trade apply. Murrumbidgee inter-state trades closed 30 April 2018. Murrumbidgee inter/intra-valley trade closes 31 May 2018. Additional information on season closing dates can be viewed on the WaterNSW website.

Next announcements

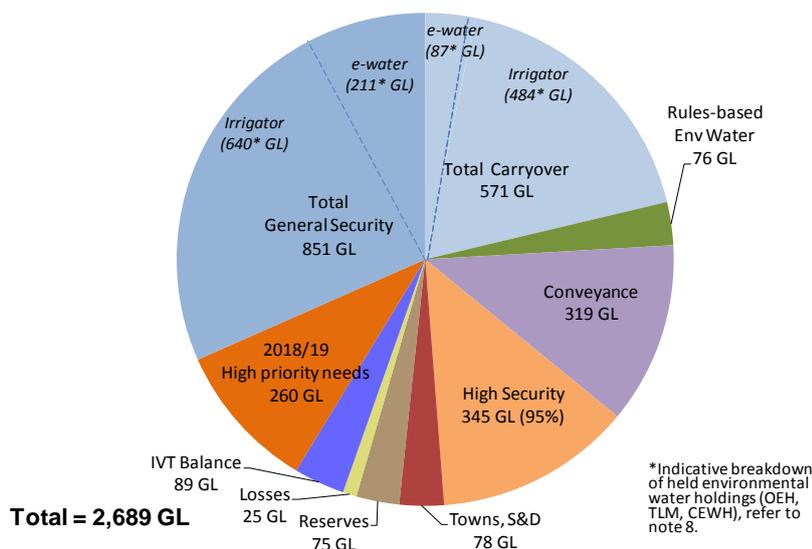
This is the final water allocation statement for the 2017-18 water-year. Opening state-wide water allocations will be made on **Sunday 1 July 2018**, with the next water allocation statement for the Murrumbidgee Valley to be issued on **Monday 16 July 2018**.

Murrumbidgee Resource Assessment Data Sheet

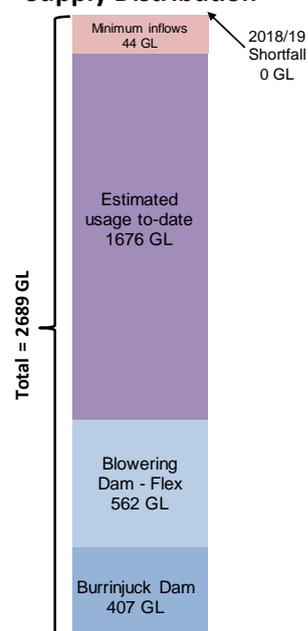
Resource Distribution (15 May) for 2017-18	
	Volume (GL)
Total Available Resource ⁽¹⁾	2,689
less	
Carryover (GS and Conveyance)	571
Rules based Environmental Water ⁽²⁾	76
Towns, Stock, Domestic	78 (100%)
Reserves ⁽³⁾	75
Conveyance ⁽⁴⁾	319
Announced High Security	345 (95%)
Losses (transmission, evaporation, operational) ⁽⁵⁾	25
Murrumbidgee IVT balance carryover at 1 July 2017	89
Late Season Discount ⁽⁶⁾	0
Announced General Security	851 (45%)
Future (2018/19) high priority needs ⁽⁷⁾	260

*See notes below.

Resource Distribution 2017-18 Murrumbidgee Valley - 15 May 2018



Supply Distribution⁽⁹⁾



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 estimated usage to date including Snowy Hydro's net Jounama Release of 977 GL from 1 May 2017 to 30 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 18GL) and environmental water allowances (EWA1 = 50GL, EWA2 = 8GL, 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 211GL of GS, 12GL of HS, 45GL 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). Towards the latter half of the water year, it will also include any existing shortfall in meeting the following next year's high priority needs (refer to note 7).

Water availability outlook for 2018-19

Key information

- This updated outlook for the likely 1 July 2018 water allocation is conservatively based on assumed 95th percentile inflows for the remainder of the current 2017/18 water year based on the current very dry conditions. Indicative allocations for September and November 2018 under a range of possible inflow scenarios are provided to assist water users to plan ahead.
- The Murrumbidgee Valley has experienced very dry conditions this water year, with natural flows equalled or exceeded in 87 out of 100 years (87th percentile inflows). This has been offset by considerable inflows from Snowy Hydro this year late in the season, allowing an increase in allocation despite the dry conditions.
- 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 their account limits (allocation plus carryover) are 100 per cent of entitlement.
- The estimate of end-of-year carryover is uncertain as it is dependent on weather conditions over coming weeks and individual decisions by water users. With the late season increase in allocations this year and hydrographic (meter) updates, the average carryover is estimated to be close to 26 per cent of entitlement, namely around 580,000 megalitres (ML).
- Access to inter-valley trade in 2018-19 is dependent on the balance of the IVT account. The 30 June balance will carry forward to 1 July.
- 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 next working day following, until full allocations are achieved.

Indicative allocations on 1 July 2018

- Full allocation can be expected for all towns, as well as domestic and stock access licences.
- Private carryover will be fully deliverable. It is estimated that the average carryover across the valley will be very high, close to 26 per cent of entitlement (30 per cent is maximum allowable).
- 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 (99th percentile) through to the end of this (2017-18) water year, there will be a **3 per cent** commencing general security allocation on 1 July 2018. This is from remaining discretionary Snowy Hydro releases accounted for after this assessment.
- If carryover is 26 per cent, it means that average general security water availability on 1 July could be expected to be 29 per cent of entitlement.
- 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 from storages.

Chances of improvement

The chances of improved general security allocation in the Murrumbidgee after 1 July 2018, based on different inflow conditions, are provided in the following table.

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	1 Sept 2018	1 Nov 2018
99 chances in 100 (extreme) (99%)*	3	3
9 chances in 10 (very dry) (90%) ^{^, **}	5	15
3 chances in 4 (dry) (75%)**	12	25
1 chance in 2 (mean) (50%)**	20	50

Storage behaviour modelling using all years and general security carryover of about 26%.

[^] Currently tracking in 2017/18 in this (very dry) vicinity (about 87th 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.